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# The Integration between Strategy Formulation and Implementation in Construction Contracting Firms in Ireland

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# **The Integration between Strategy Formulation and Implementation in Construction Contracting Firms in Ireland**

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Degree: PhD

Academic Institute: Technological University Dublin

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## Abstract

The role of the construction sector in Ireland is critical in terms of the economic and social development however the economic, competitive, and regulatory business environment present a myriad of complexities to firms operating within the sector. The importance of strategic planning for business survival and prosperity has been well documented over several decades of research but there remains a paucity of empirical evidence to determine the in strategic decision-making process under these volatile environmental conditions. This study addresses the perceptible gap in existing knowledge by investigating the characteristics of the strategy strategic decision-making process, strategic choices, and implementation process in addition to the impact of environmental turbulence on the strategy process within Irish construction contractor firms.

A mixed-methods research approach was adopted over two phases of fieldwork. With support from the Construction Industry Federation (CIF) of Ireland a widespread survey was disseminated to a key informant at senior management in each member firm, for which a 22 per cent usable response rate was obtained. Results from the quantitative phase were analysed prior to the qualitative stage, involving semi-structured interviews being undertaken.

The findings demonstrate that the strategic type, strategic choices, planning approach, flow, participation, and comprehensiveness of strategic planning vary according to company size. Likewise, it was found that competitive success arises from the continuous configuration of a firm's assets in response to market changes, which resonates with the Dynamic Capabilities perspective of competitive strategy. While there is growing realisation regarding the importance of strategic planning for business survival, the results reveal a modest level of experience in engaging in strategic planning and implementation among the majority of construction contracting firms. The absence of guidance for contractors emerged from research

findings and to that end a framework was developed to guide the strategic decision-making and implementation processes within construction contractors, which is a significant contribution of the research.

The findings of the research provide unique insights into the strategic decision-making process within a turbulent environment, specifically the construction sector, thus filling a clear gap in existing knowledge in this regard. The framework developed has been validated within the construction industry in Ireland; however, has potential applicability internationally both within the construction sector but also other industries operating within a turbulent environment.

## Dedication

This work is dedicated to the martyrs of the Egyptian revolution in 2011 who sacrificed their lives seeking freedom and equality for the whole nation.

## Acknowledgements

I would like to use this opportunity to thank my lead supervisor, mother, and role model Dr Róisín Murphy. She has always been providing invaluable support, guidance, assistance, and encouragement. This research project would have never reached an end without her leadership and inspiration.

Many thanks as well to my second supervisor, Dr Nicholas Ingle, for his precious advises throughout the PhD journey. His unique practical experience provided outstanding guidance to ensure the usefulness of the study to the Irish construction industry.

Likewise, I would like to express my sincere appreciation to all the senior directors of construction contracting firms who participated in the fieldwork phases of research. The study would not have been possible without their involvement.

Finally, I would like to thank my father, Prof. Hossam Hassan, for this continuous support and encouragement. He has always been my mentor, teacher, and best friend.

## Declaration Statement

I certify that this thesis which I now submit for examination for the award of Doctor of Philosophy is entirely my own work and has not been taken from the work of others, save and to the extent that such work has been cited and acknowledged within the text of my work. This thesis was prepared according to the regulations for postgraduate study by research of the Technological University Dublin and has not been submitted in whole or in part for another award in any other third level institution. The work reported on in this thesis conforms to the principles and requirements of the TU Dublin's guidelines for ethics in research. TU Dublin has permission to keep, lend or copy this thesis in whole or in part, on condition that any such use of the material of the thesis be duly acknowledged.

Signature \_\_\_\_\_Ahmed Hassan\_\_\_\_\_

Date \_\_\_\_\_27/7/2020\_\_\_\_\_

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## List of Abbreviations

BOT: Build-Operate-Transfer

CEO: Chief Executive Officer

CIF: Construction Industry Federation

CIRI: Construction Industry Register in Ireland

CIS: Construction Information Services

CPD: Continuous Professional Development

CSF: Critical Success Factors

CSO: Central Statistics Office

DKM: DKM Economic Consultants

EC: European Commission

ESRI: Economic and Social Research Institute

GDP: Gross Domestic Product

GNP: Gross National Product

IO: Industrial Organisation

ISIC: International Standard Industrial Classification

PSF: Professional Service Firm

SCP: Structure-Conduct-Performance

SCSI: Society of Chartered Surveyors

SWOT: Strengths, Weaknesses, Opportunities, and Threats

TU Dublin: Technological University Dublin

UK: United Kingdom

UN: United Nations

US: United States of America

VAT: Value Added Tax

VRIO: Valuable, Rare, Inimitable and Organisation

## Chapter 1. Introduction

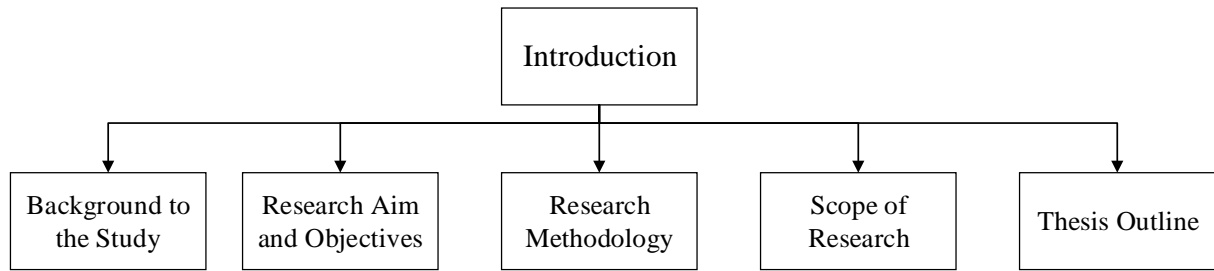


Figure 1. 1: Map of Chapter 1

### 1.1 Background to the Study

The construction industry is a branch of manufacture and trade based on the building, maintaining, and repairing of structures (Pheng and Shing, 2019). Construction projects are classified into residential, private non-residential (e.g. commercial and industrial), and infrastructure projects such as roads, dams and irrigation work (Murphy, 2011). These projects are undertaken by general and special trade contractors engaged in contractual agreements to implement building activities (UN, 1968). A contracting firm refers to any entrepreneurial unit responsible for managing, implementing, and controlling on-site construction activities. They are classified as project-based firms, where construction projects are the primary mechanism for integrating their business functions to serve clients (Setiawan et al., 2017; Thiry and Deguire, 2007).

The construction industry has an important role to play within the overall economy of any given country. It forms the basis of a nation's economic competitiveness and living standards. In Ireland, the construction industry is a crucial driving force for national economic growth (CSO, 2019a). It has accounted for the delivery of essential building projects, increased economic growth, and lowered unemployment rates (Aylward and O'Toole, 2007; Murphy, 2011). The industry contributed 7.7 per cent of the Irish GNP in 2018 (Linesight, 2020). Moreover, 1 in 10 jobs in Ireland depends on the construction

sector (CSO, 2018b). Therefore, the prosperity of the industry is necessary for the sustained growth of the Irish economy.

The construction industry in Ireland underwent a sharp contraction during the economic recession in 2007 (CSO, 2018a). The sharp decline in the volume of construction activities was brought about by a combination of the global economic downturn, domestic banking crises, and deteriorating exchequer balances (Murphy, 2011). As a result, 23 per cent of Irish construction firms did not survive this catastrophic period (CSO, 2018a), and the surviving firms experienced an immense degree of competitive rivalry due to severe reduction in workload.

The economic recession revealed the vulnerability of Irish contracting firms to economic instability resulting in severe fluctuations in construction output (CSO, 2018a). Moreover, contracting firms are susceptible to a highly competitive business environment exacerbated by the industry fragmentation, skill shortages, complexity of raising capital, dated procurement methods, low barriers to market entry, and excessively demanding clients (Ashworth and Hogg, 2002; DKM, 2016; Turner and Townsend, 2016). Therefore, construction contracting firms need to craft and implement a coherent strategy that considers the contemporary state of market flux to combat the economic and market threats to their survival (Dikmen and Birgonul, 2003; Oyewobi et al., 2015; Phua, 2006). Strategic management is deemed vital to forecasting economic changes, identifying favourable opportunities, and harmonising business processes with the market cycle in pursuit of sustainable competitive advantage over rivals (Oyewobi et al., 2015; Phua, 2006; Tansey et al., 2014).

Strategic management is a complex and multifaceted academic field (Durand et al., 2017; Pederzini, 2016). Nevertheless, strategic management research within the construction industry remains scarce due to the extensive focus of construction scholars on operational management

(Murphy, 2011; Schleifer, 2015). The limited academic endeavours on strategic management mainly focus on the strategic choices of contracting firms (Tan et al., 2012; Tansey and Spillane, 2016). The majority of these studies examined the impact of strategic choices on business performance in developed nations (Lim et al., 2010; Tan et al., 2012) and developing countries (Oyewobi et al., 2015; Tansey and Spillane, 2016). However, the characteristics of the strategic planning process by which Irish contracting firms inform their strategic choices remain unknown. Likewise, there is a dearth of research on the implementation of strategy in Irish construction context.

Scholars have made limited progress in exploring how contracting companies formulate these strategic choices (Green et al., 2008; Oyewobi et al., 2015). Little attention has been paid to investigating the characteristics of strategic decision-making in Irish construction firms (Murphy, 2016). Exploring the dimensions of strategic decision-making remains mandatory due to their direct impact on the strategic choices of Irish contracting firms. Similarly, the components of the strategy implementation process in Irish contracting firms remain unknown. However, the achievement of competitive advantage in the market is highly dependent on the implementation phase (Hrebiniak, 2006; Lippitt, 2007). Therefore, the study in hand seeks to address this gap in knowledge by exploring the characteristics and components of strategic decision-making and implementation processes.

The success of strategic management in construction firms mandates coherence between strategic decision-making and strategy implementation through construction projects (Johnson and Scholes, 1999; Morris and Jamieson, 2004; De Wit and Meyer, 2004). Nevertheless, project-based contracting firms struggle to align their construction projects with the overriding strategic objectives of the company (Thiry and Deguire, 2007). Projects are often seen as single ventures; and therefore, they rarely reflect the strategic orientation of the firm (Grabher, 2004).

Thus, the consistent integration between strategic decision-making and construction projects is vital since it ultimately determines the success or failure of strategic management in contracting firms (Pedersen and Ritter, 2018).

The study in hand intends to explore the extent of integration between strategic decision-making at a corporate level and strategy implementation at a project level in construction contracting project-based firms in Ireland. This objective is to be achieved by exploring the characteristics and constituents of the strategic planning and implementation processes. These findings will serve as a backbone for the development of a framework for integrating the strategic planning and implementation in Irish construction contracting firms to ensure the success of the strategic management process. This study addresses a discernible gap in knowledge pertaining to strategy formulation and implementation in construction contracting firms in Ireland.



## 1.2 Research Aim and Objectives

The background of the study outlined in section 1.1 gives rise to the following research question:

How can project-based construction contracting firms in Ireland ensure the successful implementation of strategic decisions within the turbulent construction industry environment?

This study aims to develop a framework for the integration of the strategy formulation and implementation processes in project-based construction contracting firms in Ireland.

This aim will be achieved by reaching the following objectives, all within the context of project-based construction contracting firms in Ireland:

1. To explore the characteristics of the strategy formulation process in construction contracting firms in Ireland.
2. To determine the key components of the strategy implementation process in construction contracting firms in Ireland.
3. To ascertain the strategic type and choices of construction contracting firms in Ireland.
4. To investigate barriers to the strategy formulation and implementation processes in construction firms operating in the Irish turbulent industry environment.
5. To develop a framework for the formulation and implementation of strategic decisions in construction contracting firms operating within the turbulent Irish environment.

### 1.3 Research Methodology

The complexity and diversity of the investigated issues required a multifaceted research approach that combined objective and subjective data to develop a thorough framework. Mixed-methods were chosen to accomplish the aim of the exploratory study at hand for the aim of comprehensiveness and data triangulation. Fieldwork occurred in two phases, and each phase was pilot tested in advance.

The first phase was an online questionnaire administered to the managing directors of Irish contracting firms due to their considerable involvement in strategic decision-making. The number of usable responses was 84, which represents 22 per cent response rate. Moreover, the primary objective of the second research phase was to gain in-depth insights into the strategic planning and implementation processes and facilitate the triangulation of the quantitative findings. Qualitative data were collected in the second phase using semi-structured interviews conducted with the senior directors of contracting firms in Ireland. The second phase was designed along similar dimensions to the first one. Likewise, participants from phase one were included in the second stage of fieldwork to validate and triangulate the findings.

The ethical validity of the data collection process and procedures was confirmed by the research committee in Technological University (TU) Dublin. Permission was sought from senior directors of Irish contracting firms to participate in the fieldwork. Moreover, the research design ensured the anonymity of participants and the confidentiality of the gathered data. Finally, research participants were invited to participate in the third phase of fieldwork to evaluate the developed strategic management framework. Participants were asked to provide their feedback concerning the clarity, relevance, and usefulness of the framework. Their responses were used to refine and validate the framework.

## 1.4 Scope of Research

The scope of the study in hand is bounded to the processes of strategic decision-making and implementation in construction contracting firms in Ireland. The research focuses on building contractors and does not cover professional service firms (PSF) (e.g. designers and quantity surveyors) or specialist contractors (e.g. electricians, plumbing, and heating contractors).

The impact of strategic management on business performance lies outside the scope of the study. Several studies, such as Arend et al. (2017) and Dincer et al. (2006), found a positive correlation between engaging in strategic management and enhancement in business performance. Nevertheless, this correlation remains unexplored in the Irish construction industry. Therefore, this topic presents a substantial opportunity for further research relating to strategic management in the Irish construction industry.

## 1.5 Thesis Outline

### **Chapter 1**

The first chapter provides an introductory overview of the rationale behind this research project. It outlines the research question, aims, and objectives as well as the methodology employed for this investigation. The scope of the study is overviewed before the presenting an outline of the thesis.

### **Chapter 2**

This chapter provides an overview of the Irish construction industry with attentiveness to its structure and contribution to the national economy. It outlines the characteristics of the industry and the importance of construction for economic growth to demonstrate the wide range of benefits brought by the industry. Likewise, the role of contractors within the industry is illustrated since this study mainly focuses on construction contracting firms. Furthermore, the business environment in Ireland is analysed to illuminate the opportunities and threats confronting Irish contracting firms.

### **Chapter 3**

This chapter focuses on reviewing the extensive literature regarding the strategic management academic field. It starts by comparing the varying definitions of strategic management. An overview of the evolution of the strategic management field is then presented, followed by reviewing the definitions, theories, and applications of strategic planning in business entities.

The implications of market transformations on the planning process are scrutinised to investigate the application of strategic planning in turbulent markets. After that, the characteristics of strategic planning process are explored, including planning formality, comprehensiveness, participation and flow, use of planning tools, and plan duration. Moreover,

the outcomes of strategic planning are demonstrated. Finally, several strategic planning models are listed and analysed to facilitate the application of strategic planning in business practice.

#### **Chapter 4**

This chapter reviews the literature pertaining to the origins, definitions, and components of the strategy implementation process. Moreover, the challenges facing the implementation process in business firms are highlighted. Finally, the intricacy of executing strategy in project-based firms is investigated.

#### **Chapter 5**

This chapter analyses the application of strategic management in construction firms. It explores the unique characteristics of the strategic planning process within construction companies. Moreover, it discusses the strategic choices of firms operating in the construction industry. Eventually, it examines the implementation of strategy in construction project-based firms.

#### **Chapter 6**

The methodology for this study is detailed in chapter six. This chapter discusses the design of the research methodology, including the philosophical research paradigm, research strategy, research horizon, and data collection methods. Mixed methods were employed for gathering data to fulfil the study objectives. The primary research method used is quantitative and takes the form of survey questionnaire disseminated to senior managers of construction contracting firms in Ireland.

The second research method employed was qualitative and took the form of semi-structured interviews with twelve senior managers of Irish construction contracting firms. Phase one participants were included in the second phase, which further served to triangulate the findings.

Moreover, the data collection and handling techniques are also detailed within this chapter. Finally, issues relating to validity and reliability are discussed.

## **Chapter 7**

This chapter presents the findings and analysis of the collected data. The quantitative phase focused on gathering numerical data and generalizing it across the study sample to explore the phenomena under investigation. On the other hand, the qualitative phase of fieldwork sought to gain further insights into the characteristics of the strategic planning and implementation processes within Irish contracting firms. Empirical and thematic analysis were conducted to generate knowledge and gain insights in order to fulfil the research aim and objectives.

## **Chapter 8**

The primary contribution of the thesis is presented in chapter eight. Based on existing literature and fieldwork findings, a framework has been developed to assist Irish construction contracting firms in integrating strategic planning and implementation processes. The process of framework development is thoroughly explained in this chapter. Likewise, the components and characteristics of the framework are expounded.

## **Chapter 9**

The final chapter outlines the conclusions drawn from the research, details the contribution to knowledge and industry, notes limitations to the findings, and outlining recommendations for further investigations.

## Chapter 2. The Construction Industry in Ireland

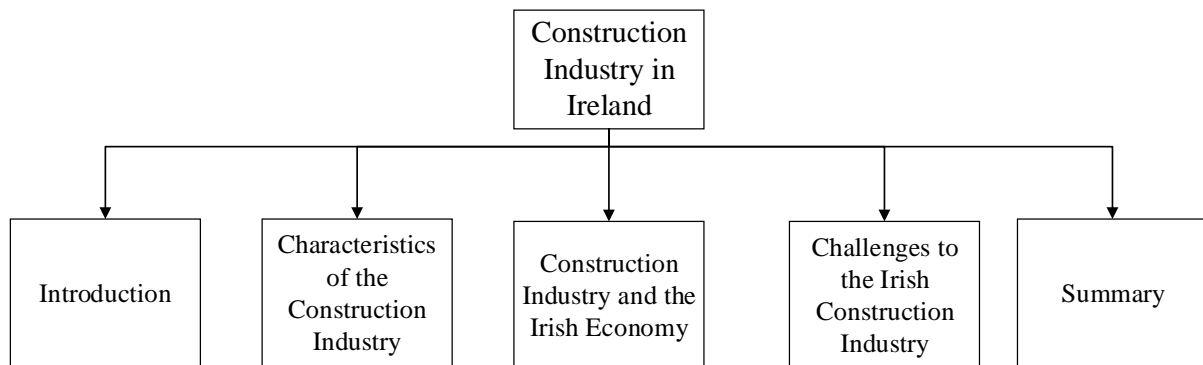


Figure 2. 1: Map of chapter 2

### 2.1 Introduction

This chapter provides an overview of the Irish construction industry with attentiveness to its structure and contribution to the national economy. It outlines the characteristics of the industry and the importance of construction for economic growth to demonstrate the wide range of benefits brought by the industry. Likewise, the role of contractors within the industry is illustrated since this study primarily focuses on construction contracting firms. Furthermore, the business environment in Ireland is analysed to illuminate the opportunities and threats confronting Irish contractors. Analysing the forces that shape the competition within the industry is essential when exploring how strategy is practised within domestic construction contracting firms. Market forces largely influence the design, characteristics, and outcomes of the strategic planning process within contracting firms (Dansoh, 2005).

## 2.2 Characteristics of the Construction Industry

Construction is referred to as an economic activity that involves the production of durable buildings and works that serve society (Pheng and Shing, 2019). Construction activities include new construction projects, alterations, repair, and demolishing of buildings and civil works. These activities can either be conducted in-situ or comprise the assembly of prefabricated integral parts that are produced in manufacturing facilities (Hillebrandt, 2000).

According to the International Standard Industrial Classification (ISIC), construction work is undertaken by general and special trade contractors engaged in contractual agreements to implement building activities (UN, 1968). A contracting firm refers to any entrepreneurial unit responsible for managing, implementing, and controlling on-site construction activities. A construction firm can be a single person, partnership, small company, public limited liability company, or a multinational corporation (Hillebrandt, 2000). Construction companies are classified as project-based firms that deliver unique end products by temporary professional teams (Setiawan et al., 2017).

The construction industry is defined as a group of firms with closely related activities involved in the designing, managing, altering, repairing, and demolishing of real estate, productive, and infrastructure buildings (Fulford, 2019). These firms range from main contractors and sub-contractors to professional service firms, machinery suppliers, and materials suppliers (Hillebrandt, 2000). Contracting firms are the cornerstone of the construction industry. Main contractors are firms that obtain contracts from clients to carry out construction work. On the other hand, sub-contractors are specialised firms that form direct agreements with main contractors to perform a set of operational tasks (Hillebrandt, 2000).

The number of construction firms in Ireland was recorded to be 50,546 in 2017 (CSO, 2017). 98 per cent of these firms employ less than 10 personnel.



<b>Employees Range</b>	<b>Number of Firms</b>	<b>Number of Employees</b>	<b>Total Turnover (€million)</b>
0-9	49,192	36,409	9,561
10-49	1,240	22,251	3,077
50-249	101	8,897	1,160
250 or more	13	6,030	1,560

Table 2. 1: Construction firms in the Republic of Ireland (CSO, 2017)

The construction industry is divided into several sectors. Murphy (2011) classified the construction industry into four main sectors: residential, private non-residential, productive infrastructure, and social infrastructure. Each sector can involve several sub-sectors underneath it.

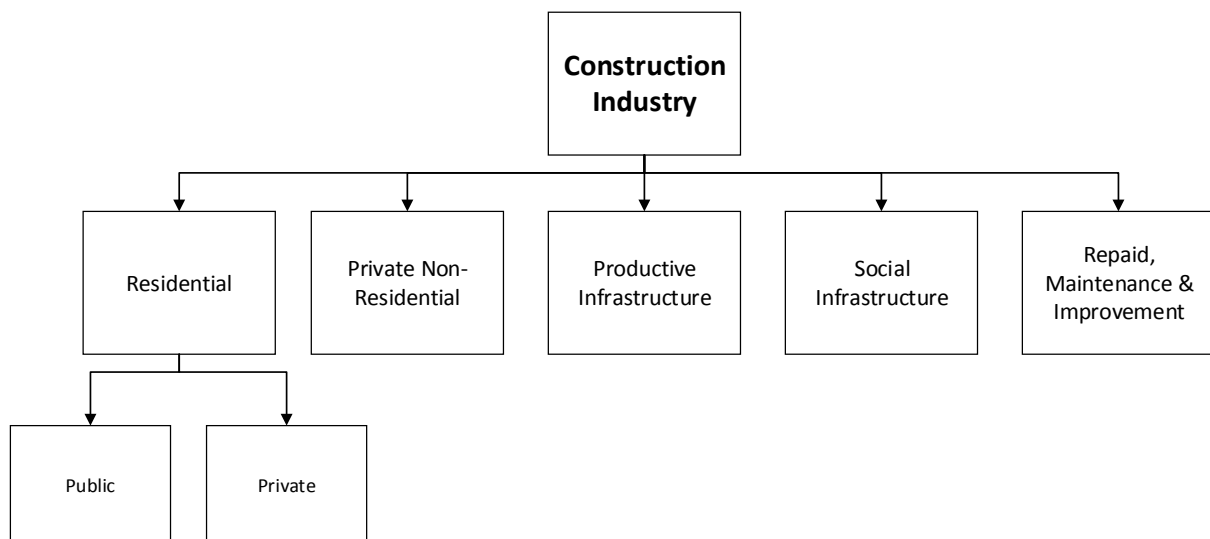


Figure 2. 2: The construction industry sectors (Murphy, 2011)

Construction projects differ from one sector to another in terms of uses, codes and permits, building materials, and required equipment. Likewise, a construction sector has an impact on the nature of project owner (i.e. public/private), procurement process, design and engineering

processes, required capital and resources, in addition to the involvement of stakeholders in the construction process.

Construction projects are comprised of a set of stakeholders: project owners, end-users, designers, builders, suppliers, project financiers, legal representatives, and insurance companies (Oyewobi, 2015). Each of these stakeholders collaborates to implement a specific project despite their diverse objectives and motives (Giritli and Oraz, 2004). The plethora of stakeholders differentiates the construction industry from the manufacturing and services sectors which have relatively permanent structures (Oyewobi, 2015). Likewise, the unique nature of the final product (e.g. road, bridge, dam) is distinct from manufacturing where goods are similar and produced in a repetitive manner (Murphy, 2011). Therefore, it can be deduced that the industry is characterised being complex and project-centred since an array of firms cooperate on an ad-hoc basis to produce a unique output (Giritli and Oraz, 2004).

Contracting firms usually work in an uncertain environment (e.g. lack of complete specifications for activities, lack of uniformity of materials, teams, and scope) under increasing pressure to deliver projects according to a designated schedule and within a specific budget. Complexities that surround projects delivery, the multitude of firms and individuals involved in projects implementation, capital intensity, tight profit margins, as well as the high level of financial risk are inherent challenges to the survival of contracting firms (Cheah and Chew, 2005). Moreover, other challenges facing contractors are limited economies of scale, low barriers to market entry, the complicated relationship between stakeholders, and cyclicity of construction supply.

One of the fundamental characteristics of the construction industry that forms a severe challenge to contracting firms is cyclicity. The demand for construction projects is highly related to economic changes (Hillebrandt, 2000). Key economic trends such as fluctuations in

economic growth rate, interest rate, public expenditure plans, changes in population, and levels of employment largely influence the wellness of the industry (Oyewobi, 2015). The robust relationship between economic performance and demand for construction projects leaves the industry vulnerable to recession as a result of any economic slowdown. The following section discusses the relationship between the business performance of contracting firms and the economy in Ireland.

### 2.3 Construction Industry and the Irish Economy

The construction industry is responsible for meeting the demand for commercial, residential, industrial, and infrastructure buildings. It has a considerable role in raising economic output, initiating enterprises, and reducing unemployment (Soman et al., 2017). Likewise, construction is the creator of the built environment within which most of the economic activities take place (Ball, 2014). Hence, the construction industry is considered a key contributor to the economic and social development in both developed and developing nations (Ilhan and Yobas, 2019).

The construction industry provides a marked contribution to the global economy (Ajayi et al., 2016; Soman et al., 2017). The share of the construction industry in the global economy was estimated to be around \$10.8 trillion in 2017 (Linker, 2018). It accounts for 6 per cent of the world's Gross Domestic Product (GDP) (Linker, 2018). The share of construction in the world's economy is forecasted to reach \$12.9 trillion by 2022 (Linker, 2018).

In Ireland, the construction industry plays a significant role in the economy in terms of contribution to GDP and employment (Murphy, 2010). The industry contributed 7.2 per cent of the Irish GDP in 2016 (CSO, 2018a). This contribution is substantial when compared to the contribution of construction to UK GDP (6 per cent in 2017) (Rhodes, 2018), and the contribution of construction to the EU economy (9 per cent in 2018) (EC, 2019).

The Central Statistics Office (CSO) indices show that construction output increased by 10.6 per cent in the first quarter of 2019 when compared with the first quarter of 2018 (CSO, 2019a). Moreover, the Construction Information Services (CIS) forecasted the Irish construction output to represent 10 per cent of the national GDP by 2020 (CIS, 2017). Employment in construction also significantly grew in 2018 to reach 137,400 of direct employment, reflecting an increase of 22 per cent over the last two years (CSO, 2018b). While this meant that 1 in 10 jobs depends on construction, the number of construction jobs is expected to grow at a rate of 1,000 new jobs per month over the following years (CIS, 2017).

Although the construction industry accounts for a considerable portion of the GDP in Ireland, the industry witnessed a severe contraction in 2007 due to the global economic recession and domestic banking crisis (Murphy, 2011). The decline in construction output saw the industry slide from a peak of €38.6 billion in 2006 to a trough of €7.5 billion in 2012 (CSO, 2018a).

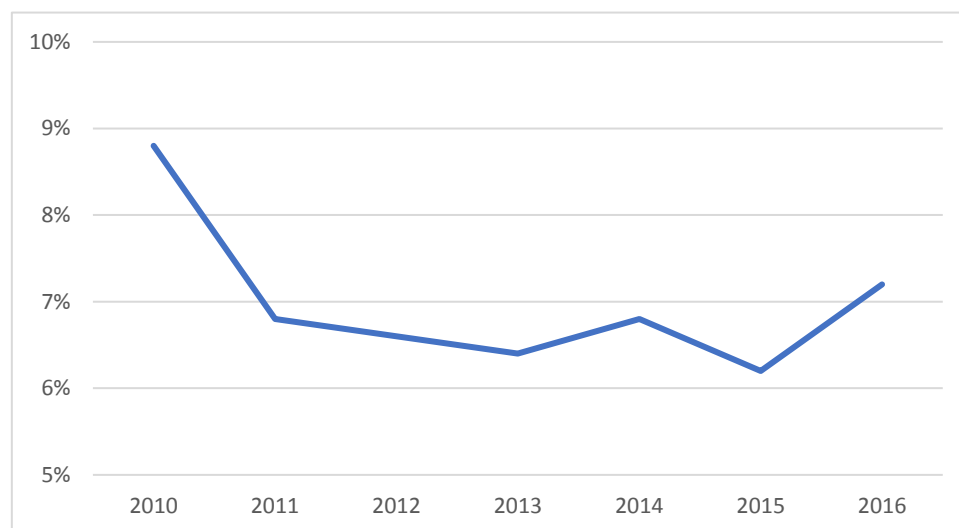


Figure 2. 3: Construction output as % of Irish GDP (CSO, 2018a)

Construction firms faced unprecedented losses in revenues and workload amid the recession. 23 per cent of construction firms in Ireland did not survive this catastrophic period (DKM, 2016). The remaining firms relied on severe cost-cutting measures to maintain their survival

(Tansey et al., 2014). Over 200,000 of total job losses in the construction industry in Ireland were recorded between 2007 and 2010 (DKM, 2016). Nevertheless, the following years witnessed signs of strong recovery of the national economy and construction industry post the severe downturn (Murphy, 2011).

The Irish GDP experienced rapid growth rate over the past few years, ranging from 26.3 per cent in 2015 to 5.9 per cent in 2018 (CSO, 2019b). Economic growth was driven by the remarkable flow of foreign direct investments into Ireland. Foreign investors created a massive demand for commercial and industrial construction projects. As a result, the construction industry experienced steady growth in terms of output since 2015 (CSO, 2018a).

The public sector has also demonstrated strong intentions to support the growth of the Irish construction industry. The 2017-2019 Multi-Annual Public Capital Investment programme revealed a planned expenditure of €4.5 billion in 2017, €5.3 billion in 2018, and €6 billion in 2019 on construction projects (Dormer and Ivory, 2015). The public expenditure plan concentrated on transportation, education, housing, and health projects. The public investment programme is aligned with the national strategic plan, Project Ireland 2040, that aims to improve both the economic well-being and social equality in the republic.

The increased economic activity was reflected on the performance of construction firms in Ireland. In 2016, The CIF released a report ranking the largest twenty construction contractors in the Republic of Ireland (appendix C). Large contracting firms reported a significant growth in their annual turnover; the overall turnover of the largest three contracting companies in Ireland was around €2 billion (CIF, 2016). Growth in turnover of large contractors is a strong indication of the recovery of the Irish construction industry.

In summary, the recovery of the construction industry is driven by the continuous economic growth, a steady increase in the Irish population, infrastructure shortages, and national plans

that leverage the Irish economic well-being and social equality (AECOM, 2018). In 2016, the construction industry was ranked as the fifth most significant contributor to the Irish economy (CSO, 2018). The CIS forecasted that the construction output would continue to grow during the next years with the support of the prementioned factors.

The positive outlook for the Irish construction industry is expected to provide local construction firms with favourable opportunities to achieve business growth and prosperity. However, several threats may potentially pose constraints to the development of the industry. Despite the positive prospects for the Irish construction industry, contracting companies are facing challenges that are obstructing their momentum. Low productivity, financial difficulties, tendering processes, skills shortage, and globalisation are critical issues that can harm the ability of the industry to meet the soaring demand for construction projects (SCSI, 2019; Turner and Townsend, 2016).

## 2.4 Challenges to the Irish Construction Industry

### 2.4.1 Productivity

Construction projects are inherently complex and dynamic, involving multiple processes and numerous stakeholders (Sveikauskas et al., 2016). As a result, low productivity and schedule delays are widespread in construction projects despite the advances in construction equipment and management techniques (Park and Peña-Mora, 2003). Low productivity is considered a significant barrier to the development of the construction industry in Ireland and across the world (Aylward and O'Toole, 2007; Sveikauskas et al., 2016).

Over the last two decades, construction productivity has recorded modest improvement when compared to productivity in the manufacturing and agricultural sectors (Forbes and Ahmed, 2011; van Lith et al., 2015). Aylward and O'Toole (2007) found that low construction productivity is more pronounced in Ireland. They discovered that residential construction

productivity in Ireland grew by an average of 2.7 per cent from 1993 to 2003. This figure revealed that Ireland was lagging behind most of its European neighbours in terms of residential construction productivity (Aylward and O'Toole, 2007).

Several factors contribute to the modest rates of productivity in construction, such as the reliance on design-bid-build procurement method, obsolete operational processes, and fragmentation of the industry (van Lith et al., 2015). Several scholars, such as Trebilcock and Rosenstock (2015), blamed design-bid-build contracts for inefficiencies in construction projects, where the client is responsible for the design and the contractors build according to the pre-designed documents.

The design-bid-build procurement method does not provide incentives for contracting firms to be innovative and provide construction projects characterised with long-term functionality (Johansson and Svensson, 2003). Innovation in construction industry lags behind innovation in other economic sectors, such as manufacturing (Loosemore, 2015). Contractors regularly rely on dated operational methods which stifle their productivity. The current low rates of construction productivity remain not sufficient to meet the soaring demand for construction projects in Ireland (DKM, 2016). Therefore, low construction productivity carries grave consequences to industry performance and national strategic plans.

The concern for low productivity in the construction industry in Ireland is instructive. Improvement in construction productivity is necessary to maintain the competitiveness of Irish contracting firms. Likewise, as the age of trade globalisation draws imminently near, the construction industry like many Irish economic sectors need to compete effectively overseas. It is then posited that improving rates of productivity should become one of the primary strategic goals of contracting firms to maintain their competitiveness (Nikakhtar et al., 2015).

#### 2.4.2 Financial Difficulties

Construction is a capital-intensive industry; it requires large amounts of investments to deliver construction projects (Nikakhtar et al., 2015). Access to finance is essential for construction companies to continue their contribution to the social and economic development of Ireland (CIF, 2017). The access of Irish contractors to funding at competitive rates and timely manner is imperative to facilitate their management of current projects, the undertaking of new projects, and the ability to invest in developing their businesses. However, Irish construction firms listed lack of finance as a severe constraint to business growth and projects delivery (CIF, 2017; DKM, 2016).

63 per cent of construction firms in Ireland reported serious difficulty when seeking access to finance (CIF, 2017). Many contracting companies reported that they depend on cash reserves to survive due to the complexity of raising capital from domestic financial institutions (CIF, 2017).

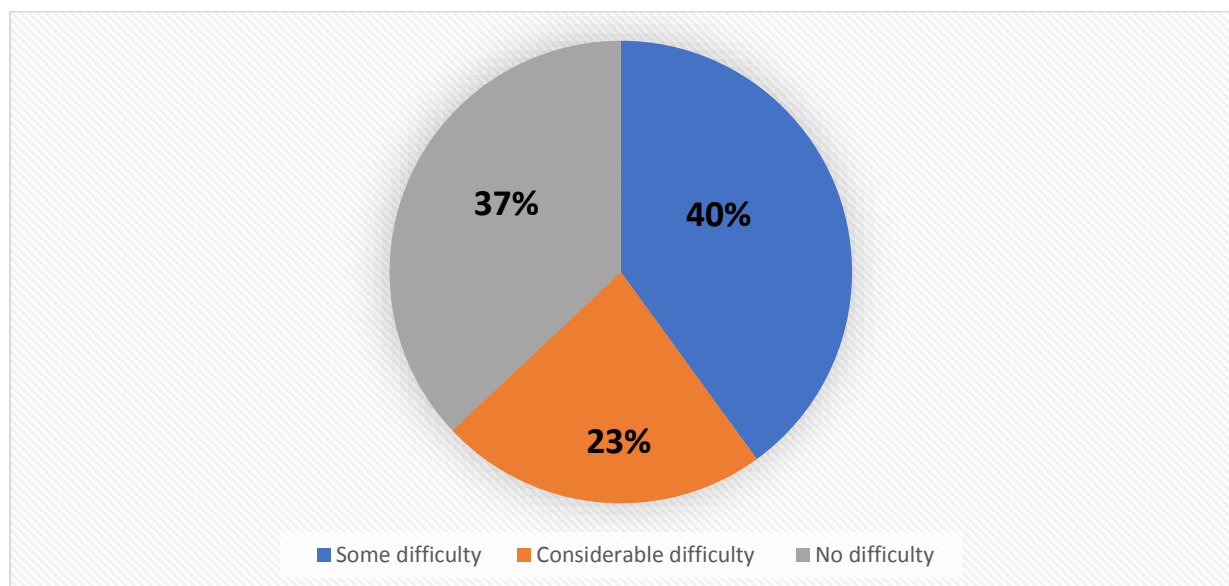


Figure 2. 4: Level of difficulty experienced when borrowing (CIF, 2017)



Limited access to finance is a critical threat to the growth of the Irish construction industry since companies may struggle to recruit staff, undertake new projects, plan strategically, and pursue business expansion (CIF, 2018). Nevertheless, the CIF reported that the growth of the domestic construction industry is vital to meet the soaring demand for residential and infrastructure projects.

The complexity of raising capital stands as a barrier to the business survival of Irish contracting firms. Local contractors struggle to face unprecedented difficulties or promote their businesses in the absence of cash reserves. This issue is exacerbated with the dominance of dated procurement methods in the construction industry, which elevates cost sensitivity and tightens profit margins. In this regard, the following section scrutinises the methods of construction projects procurement in Ireland.

#### 2.4.3 Planning and Procurement System

Procurement is a main factor in achieving project success and client satisfaction (Love et al., 2002). Rwelamila (2010) defined construction procurement to be a system that assigns responsibilities to firms and specify how different elements of a construction project relate to each other. There are various methods for procuring construction projects – e.g. traditional contracts (design-bid-build), design and build, build-operate-transfer (BOT), partnering, and public-private partnership (Latham, 1994; Mathonsi and Thwala, 2012).

The traditional procurement method (design-bid-build) is the most used in both public and private construction projects in Ireland (DKM, 2016; Mitchell, 2015). In this procurement model, the client engages a design team which prepare all contract documentation (e.g. drawings, specifications, and bill of quantities). Moreover, contractors set bidding prices for the documents provided by the design team. The tender is then awarded based on the lowest

bidding cost. The successful contractor is responsible for all trades and subcontractors required during the project duration (Mitchell, 2015).

Irish construction professionals criticised the dominance of the traditional procurement method in both public and private projects (DKM, 2016; Mitchell, 2015). This complex and onerous bidding process discourages contracting firms due to the high upfront bidding cost (DKM, 2016). Contractors are obliged to add the bidding cost to their tender prices. This policy raises the overall cost of construction projects. Therefore, there have been several calls for developing modern procurement methods that promote collaboration, encourage competition, trim bidding costs, and reduce pressure on the national exchequer funds (DKM, 2016).

The dominance of the design-bid-build procurement imposes severe restrictions on the growth and prosperity of Irish contractors since the projects bidding process is complicated and costly. Therefore, firms struggle to bid on projects as they find it difficult to secure sufficient capital, time, and staff to plan and deliver potential projects. Securing skilled staff in construction companies in Ireland remains difficult. This challenge is discussed in the next section.

#### 2.4.4 Skills Shortage

The construction industry in Ireland was accounted for the employment of 137,400 of direct employment in 2016 (CSO, 2018b). This figure represents a decline of almost 42 per cent when compared to the numbers employed at the peak of the construction boom in 2007 (CIF, 2016). The severity of the construction recession in 2008 reduced the number of available skilled workers, as well as the graduates of construction education and training programmes.

Shortage of skills is a robust barrier to delivering the public capital plan and addressing the housing crisis in Ireland (DKM, 2016). The shortage of skills is hampering the expansionary plans of Irish contracting firms to meet the domestic demand for construction projects (DKM, 2016). A report published by the Society of Chartered Surveyors Ireland (SCSI) revealed that

the skills shortage in construction is a deteriorating problem (SCSI, 2019). Likewise, it highlighted that measures taken in the past to bridge the skills gap, such as sourcing labour from abroad, have not provided a sustainable solution nor been sufficient to maintain a satisfactory level of construction activity.

Despite the steady growth of the Irish construction sector, the number of applications to construction-related colleges in 2017/2018 were limited to 4,746 students (SCSI, 2019). This number represents 57 per cent of the number of building and civil engineering students in 2009 (SCSI, 2019). Therefore, new initiatives to attract and retain workers within the Irish construction sector are critically needed.

The re-establishment of a strong skills base that covers all occupations is essential for the competitiveness of the domestic construction industry. Contracting firms need a skilled and experienced workforce to meet the soaring demand for construction projects and compete successfully with international rivals. Skills shortage is then considered a severe barrier to maintaining the competitiveness of Irish contractors.

## 2.5 Summary

The construction industry has a substantial role in the sustainable development of the Irish republic. Post the economic crisis in 2018, the recovery of the Irish construction industry is driven by remarkable economic growth, public plans to upgrade the infrastructure stock, the revival of the private sector, increasing flow of foreign direct investments, and steady increase of the Irish population (CSO, 2019b; ESRI, 2017). The positive outlook for the Irish construction industry is expected to provide local construction firms with favourable opportunities to achieve business growth and prosperity. Contracting firms are the cornerstone of the construction industry since they undertake, manage, and control construction activities to deliver diverse types of projects.

The CIF ascertains that Ireland needs a competitive, innovative, and sustainable construction sector (CIF, 2020; CIF 2014). The strategy of the CIF stresses the importance of increasing the industry contribution to the economy and jobs creation. As a result, the CIF established a set of goals to be achieved in the immediate future including the provision of housing based on measured needs of the society, continuous improvement of the construction planning process, the availability of finance for viable projects, access to mortgage finance on reasonable and sustainable terms, and ensuring the existence of a highly skilled workforce (CIF, 2020; CIF 2014). However, the accomplishment of these strategic goals is confronted with several obstacles.

Construction firms are facing contemporary challenges associated with economic cyclicalities, low productivity, complicated access to finance, dated tendering processes, and skills shortage (Aylward and O'Toole, 2007; CIF, 2017; DKM, 2016; Forfás, 2013; SCSi, 2019). These inherent challenges obstruct the growth and threaten the survival of Irish contractors. It can be concluded that economic and industry-based factors have a critical impact on the business performance of contracting firms. Therefore, the role of corporate planning should extend beyond operational planning to focus on harmonising internal business systems with the exterior environment. Strategic planning has a vital role in supporting Irish contracting firms to overcome the prevalent challenges in the construction industry environment.

## Chapter 3. Strategic Management and Formulation

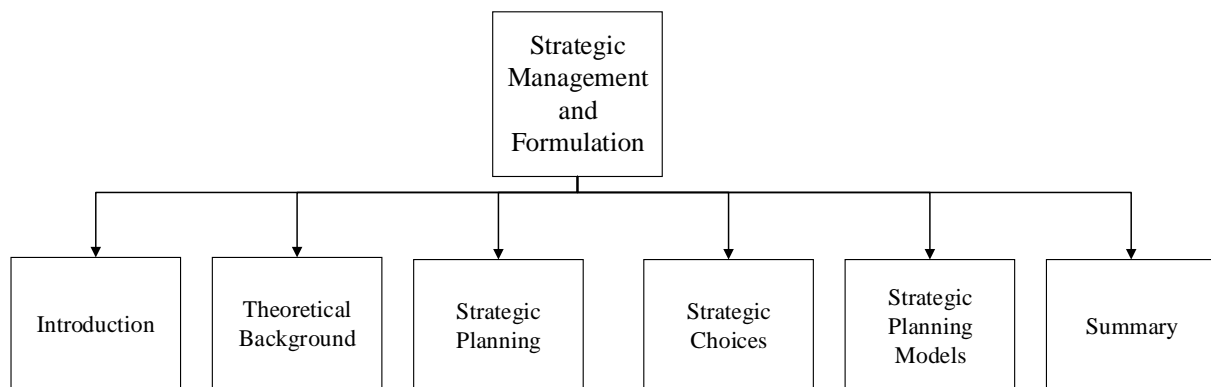


Figure 3. 1: Map of chapter 3

### 3.1 Introduction

Strategic management refers to the formulation and implementation of the primary goals and initiatives taken by a company's top managers, based on consideration of resources and an assessment of the internal and external environments within which a company operates (Nag et al., 2007). The strategic management field has experienced rapid growth as an area of research and a community of scholars since the 1960s (Hoskisson et al., 1999; Tan and Ding, 2015). Several environmental factors, such as intensified global competition, sluggish economic growth, and technological advancements provide an impetus for strategic management in business practice (Durand et al., 2017). Strategic management has then steadily evolved as an area of research to guide business practice in the prevalent uncertain industry environment (Carter et al., 2008; Guerras-Martín et al., 2014). However, Murphy (2011) asserted that strategic management remains a complex academic field and business process.

Strategic management is complex and multifaceted for the following reasons:

- There is an array of definitions for strategic management (French, 2009; Nag et al., 2007; Tan and Ding, 2015).

- Strategic management theories are driven from a broad range of academic fields, such as economics, sociology, finance, and marketing (Hambrick, 2004; Nag et al., 2007).
- The numerous strategic management theories were rarely subjected to systematic empirical testing (Durand et al., 2017).
- The strategic management process involves a high degree of uncertainty since it is concerned with making decisions about the future. Notwithstanding, it is difficult to forecast the future with high accuracy.
- The impact of strategic management process on organisational performance is still disputed (Pederzini, 2016).

The simplification and understanding of strategic management require exploration of the diverse facets of the field; therefore, the focus of this chapter will be on reviewing the extensive literature of strategic management. The first section compares the varying definitions of strategic management. An overview of the evolution of the strategic management field is then presented.

The following section reviews the definitions, theories, and applications of strategic planning in business entities. The implications of market transformations on the planning process are scrutinised to investigate the application of strategic planning in turbulent markets. After that, the characteristics of the strategic planning process are explored, including planning formality, comprehensiveness, participation and flow, use of planning tools, and plan duration. Several strategic planning models are listed and analysed to facilitate the application of strategic planning in business practice. Finally, the last section explains the outcomes of the strategic planning process.

## 3.2 Theoretical Background

### 3.2.1 Definition of Strategic Management

An understanding of strategic management is vital to facilitate its application in business development (French, 2009). Collis and Rukstad (2008) observed that strategic management usually fails in practice because business principals rarely understand the components and applications of the process. The lack of understanding of strategic management remains a robust barrier to reaping the benefits of engaging in the process (Kaplan and Norton, 2008).

A clear definition is essential to have a common understanding of strategic management. Nevertheless, a consensus on a definition of strategic management is still elusive amongst scholars (French, 2009; Tan and Ding, 2015). The overlap of strategic management with several academic fields, such as economics, sociology, finance, and marketing, has generated an array of definitions (Hambrick, 2004, Nag et al., 2007). Nag et al. (2007) asserted that strategic management represents a case in which an academic field suffers from a lack of agreement on its meaning.

Numerous scholars sought to define the central term ‘strategy’ as presented in the following table:

<b>Author</b>	<b>Definition of Strategy</b>	<b>Reference</b>	<b>Sector</b>
Alfred Chandler (1962)	‘The determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources for carrying out these goals’ pp. 13	Strategy and Structure	Manufacturing
Henry Mintzberg (1978)	‘A strategy is the pattern or plan that integrates an organisation’s major goals, policies, and action sequences into a cohesive whole.’ pp. 2	Patterns in Strategy Formation	Manufacturing – Martial
Michael Porter (1996)	‘Competitive strategy is about being different. It means deliberately choosing a different set of activities to deliver a unique mix of value.’ pp. 5	What is Strategy?	Manufacturing – Services
Jarzabkowski, Balogun, and Seidl (2007)	‘Strategy is not something that an organisation has but something its members do.’ pp. 2	Strategizing: The challenges of a practice perspective (Human Relations)	All
Johnson, Scholes, and Whittington (2008)	‘Strategy is the direction and scope of an organisation over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations.’ pp. 3	Exploring Corporate Strategy: texts and cases	Manufacturing – Public sector
Collis and Rukstad (2008)	‘A well understood strategy aligns behaviour within the business.’ pp. 2	Can You Say What your Strategy is?	Manufacturing

Table 3. 1: Definitions of strategy



The significant differences between the above definitions demonstrate the different understanding of the term ‘strategy’ amongst theorists. In table 3.1, Chandler (1962) explained strategy as the determination of the long-term goals of an enterprise by top management and allocating resources necessary to achieve these goals. Chandler was mainly concerned with multidivisional industrial enterprises that are split into distinct business units. He emphasised the importance of adjusting the organisational structure (i.e. the design of an enterprise through which a strategy is administered) to align these distinct business units for achieving overriding long-term goals. However, this causal relationship between strategy and structure was contested by several authors, such as Bobbitt and Ford (1980), Duncan (1979), and Rajapakshe (2002). They all found that once a structure is in place, it will influence a firm's strategic decision-making process, and ultimately the choice of a strategy. Therefore, they criticised the belief that the structure must follow the strategy and argued that structure constrains strategy.

Chandler also proposed that top management only are responsible for the determination of the long-term goals of a company. The definition of Mintzberg (1978) contradicted with Chandler’s definition in this regard. Mintzberg (1978) posited that strategy evolves out of the continuous and interactive learning process involving managers throughout the whole company. Middle managers have a critical role in formulating strategy as they can identify opportunities/threats due to their direct interaction with internal operational processes and exterior business environment (O’Brien and Scott, 2009). However, a fundamental shortcoming is failing to clarify the overriding purpose of developing a strategy. Mintzberg defined strategy as a pattern or plan that integrates a firm’s goals, policies and actions into a cohesive whole. Nevertheless, the purpose of this integration was not identified.

Porter’s (1996) definition stressed the purpose of strategy, in particularly competitive strategy, as it differentiates a company from rivals. Delivering unique value to clients can consolidate a

firm's position in the market and improve its long-term performance. Porter's definition, though, was criticised for focusing on market-based factors and devoting limited attention to internal factors. The selection of a unique set of activities to deliver value, as he posited, depends on environmental influences. However, a business firm can reach a unique position in the market against its competitors with the support of internal factors, such as its unique resources, processes, and capabilities (Prahalad and Hamel, 1990).

The definition of Johnson et al. (2008) is characterised with notable comprehensiveness since it considers both internal factors (i.e. resources and competences configuration) as well as external factors (i.e. analysis of environmental changes) to fulfil stakeholders' expectations. Moreover, Johnson et al. (2008) emphasised the importance of the regular evaluation of environmental changes to address the prevalent state of market turbulence (see section 3.3.4).

A common issue among the past definitions is that they dismissed the role of the human actor in developing and implementing strategy (Brown and Duguid, 2000; Jarzabkowski et al. 2007; Whittington, 2003). As a result, the definition of Jarzabkowski et al. (2007) emerged to reflect how strategy is formed in practice (Brown and Duguid, 2000; Carter et al., 2008). Jarzabkowski et al. (2007) aimed to understand the role of the human agent in developing and practising strategy since past strategy research had lost sight of the impact of human action (Whittington, 2003).

Strategy was defined as a social practice arising from the interactions of multiple human actors with entrenched organisational values (i.e. company ethics and principles) and business processes (e.g. communication, procurement, operational) (Jarzabkowski, 2005). However, this modern definition of strategy is still in its initial stages. The descriptive contributions of strategy-as-practice have not yet been transformed into a model that supports the formulation and implementation of strategy in business enterprises (Carter et al., 2008).

It can be summarised that there is no agreement on the meaning of the term ‘strategy’. The definition of strategy has evolved over the past decades, reflecting the complexity of decision-making on a corporate level. However, the primary aim amongst all definitions remains the creation of long-term goals for enterprises to maintain business survival and prosperity (Grant, 2002).

The definition of Johnson et al. (2008) will be used as a starting point for this study since it blends the long-term direction of a firm with the regular configuration of resources in response to environmental changes. Given that this study focuses on strategic management in construction, the labour and capital intensity of the construction industry necessitates an ongoing emphasis on developing the resource base needed to achieve the long-term goals of construction firms. The role of strategy lies in mediating the relationship between the goals, structure, resources, and social values of a firm with market-based and macroeconomic factors. The next section traces the development of the strategic management field over the past decades to identify the roots of modern strategic management theories and analyse recent contributions into these theories.

#### 3.1.2.2 Evolution of Strategic Management

The origins of strategic management discipline date back to 1960 (Guerras-Martín et al., 2014; Hoskisson et al., 1999). The roots of the field can be found in the seminal publications of Chandler (1962) and Ansoff (1965). Since then, it has significantly evolved to become a firmly established field in the study of business and organisations (Hoskisson et al., 1999). This section aims to explore the fundamental theories within the field to determine the theoretical lens applied to research the strategic management process in the construction industry.

The following figure presents the dominant themes throughout the evolution of the strategic management field over the last century.

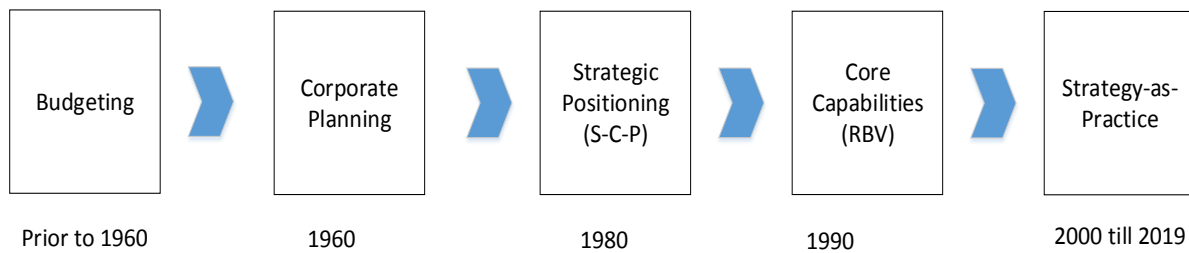


Figure 3. 2: Evolution of strategic management (dominant themes)

The historical development of the strategic management field can be divided into five main stages:

1. The precursors.
2. The development of the strategic management academic field in the 1960s.
3. The transition towards a research orientation throughout the 1970s.
4. Resource-based view during the 1980s and 1990s.
5. Strategy-as-practise in the new millennium.

### **The Precursors**

Before the 1960s, long-term thinking in business management was limited to budgeting (i.e. the process of setting financial goals and creating plans to achieve these goals) (Furrer et al., 2008). Nevertheless, famous authors, such as Chester Barnard (1938) and Henri Fayol (1949) laid a solid foundation upon which subsequent works in the strategic management field were built. Barnard (1938) emphasised the importance of creating an ongoing purpose of existence for enterprises through routine assessment of the business environment to identify favourable opportunities. Another prominent author, Fayol (1949), referred to the ‘forecast’ and ‘plan’ as primary constituents of the management process in industrial companies (Pryor and Taneja, 2010).

In many respects, the early development of strategic management field has been influenced by these rudimentary contributions that stressed the importance of long-term planning for business success.

### **Development of Strategic Management Field in the 1960s**

The evolution of multinational corporations, as well as the advent of globalisation, created a need for a formal approach to strategic management (Chandler, 1962; Ghemawat, 2002). Intense competition between large corporations encouraged senior managers to engage in formal processes to analyse the strengths/weaknesses of their firms and market factors influencing their corporations. Internal and external analysis were deemed mandatory to allocate resources optimally in order to achieve a unique market position (Ghemawat, 2002). Therefore, long-term planning came to the forefront of large corporations aiming to develop plans that link their firms to the business environment (Chandler, 1962).

Classical strategists, such as Chandler (1962), Sloan (1963), Ansoff (1965), and Learned et al. (1965) posited that corporate strategy is composed of two separated phases, formulation and implementation. The strategy is formulated by top management then implemented by lower hierarchical levels through an appropriate organisational structure and system of incentives (Guerras-Martín et al., 2014). However, the classical contributions were criticised on five main grounds:

<b>Critique of Classical Strategic Management Theory</b>	<b>References</b>
Most classical studies were normative prescriptions based on case studies conducted in a few manufacturing corporations. Therefore, generalising their contributions among all business entities and industries warranted evidence-based inquiry.	Furrer et al., 2008
The relationship between strategic management and organisational performance was not empirically examined.	Furrer et al., 2008
Intended strategic plans developed by top management were heavily criticised for inducing organisational rigidity and decoupling strategy formulation from implementation.	Mintzberg, 1994; Ocasio and Joseph, 2008
The realism of deliberate plans, built upon unwarranted assumptions and predictions, was challenged with unforeseen catastrophic events, including the oil shocks in the 1970s. Amid the severe volatility of oil prices, the decline in the accuracy of sophisticated price forecasting models downgraded the viability of prescriptive planning for longer horizons.	Pederzini, 2016; Grant, 2003
Limited traces of planning deliberateness and rationality were found in the processes of strategy formulation amongst manufacturing and services firms. Hence, the theoretical underpinnings of the classical strategies were disparate from the actual business practices.	Mintzberg and McHugh, 1985; Whittington, 2008

Table 3. 2: Critiques of classical strategic management theory

Despite the novelty and significant value of these classical contributions, they were mostly normative aiming to set rules for corporations based on a limited number of in-depth case studies. The primary goal of classical strategists was to support individual corporations, rather than pursuing generalisations across a broad population of firms for the aim of scientific advancement (Hoskisson et al., 1999). Therefore, the considerable emphasis of classical

theorists on the case study approach did not provide the necessary support for the continued advancement of the strategic management field.

Several scholars, such as Schendel and Hatten (1972) and Rumelt (1974), asserted the need for a new direction in the field: a strategic management theory from which hypotheses can be derived and empirically tested. Therefore, the 70s experienced a transition towards the use of economic theory in strategic management to allow the development of generalisable, empirically tested, knowledge (Hoskisson et al., 1999).

### **The transition towards a research orientation throughout the 1970s**

Towards the end of the 1970s, strategic management departed significantly towards economics, particularly Industrial Organisational (IO) economics to derive empirical knowledge. IO economic theory examines the relationship between the competitiveness of a firm and the market structure (i.e. characteristics of which affect the nature of competition and pricing) (Furrer et al., 2008). The economic theory received considerable attention in strategic management literature because the market structure has a direct impact on the conduct of buyers and sellers, and subsequently, firm performance, known as the Structure-Conduct-Performance (S-C-P) paradigm (Ghemawat, 2002; Hoskisson et al., 1999). In terms of methodology, strategy research departed from inductive, case studies on a limited number of corporations, to large scale statistical analyses seeking to validate scientific hypotheses.

Porter (1979) sought to link the principles of IO theory to strategic decision-making in business firms (Ghemawat, 2002). He stated that the collective strength of market forces (i.e. combatants, suppliers, buyers, potential entrants and substitute products) have a considerable impact on the profit potential of manufacturing and service firms (Porter, 1979). According to Porter, market structure analysis should be followed by a strategic course of action that

identifies a favourable market position in response to the external forces, a theory known as ‘Strategic Positioning’ (Porter, 1980).

The strategic positioning theory was built on two underlying assumptions:

1. The distribution of resources across firms operating in a similar market is perfectly homogeneous and mobile (Barney, 1991; Priem and Butler, 2001).
2. The industry structure is the primary determinant of the performance of a firm (Priem and Butler, 2001).

However, the strategic positioning theory can be contested since it is unlikely that these simplified assumptions accurately reflect the reality of the business environment due to the following reasons (Priem and Butler, 2001):

- Resources are neither homogeneous nor easily mobile across business firms (Barney, 1991). Several resources, such as tacit knowledge, can be rare, non-tradeable and attributed to a unique firm.
- The findings of Amit and Schoemaker (1993), Henderson and Cockburn (1994), Hitt et al. (2001), Newbert (2008), Rumelt, (1991) asserted that firm-specific factors (e.g. possessed resources, culture, tacit knowledge) have a more significant impact on firm performance than does industry membership. Firms possessing valuable and unique resources benefited from a competitive advantage that restricted entry of potential competitors and generated above-average economic return.

These critiques resulted in the rise of new strategic management theory, the resource-based view, in the search for sustainable competitive advantage in business firms.



## **Resource-based view during the 1980s and 1990s.**

In response to the critiques mentioned above, strategy researchers steered away from the strategic positioning theory to investigate the relationship between firm resources and business performance (Furrer et al., 2008; Hoskisson et al., 1999). The theory hypothesises that the identification and exploitation of valuable, rare, inimitable, and non-substitutable resources can create a sustainable competitive advantage (Barney, 2001; Costa et al., 2013). Hence, business firms should concentrate on the possession of valuable resources, successful exploitation of these resources, and finding suitable markets to deploy exploited resources (Kraaikenbrink et al., 2010).

Barney (1991) proposed the value, rarity, inimitability, organisation (VRIO) internal business analysis framework to analyse firm resources. The framework aims to determine the competitive potential of individual resources by asking the following questions:

- Value: is the firm able to exploit an external opportunity or resolve a threat through a resource?
- Rarity: is this resource difficult for competitors to acquire?
- Imitability: is it difficult to imitate, and is there a cost disadvantage to duplicate this resource?
- Organisation: is the firm organised to exploit this resource?

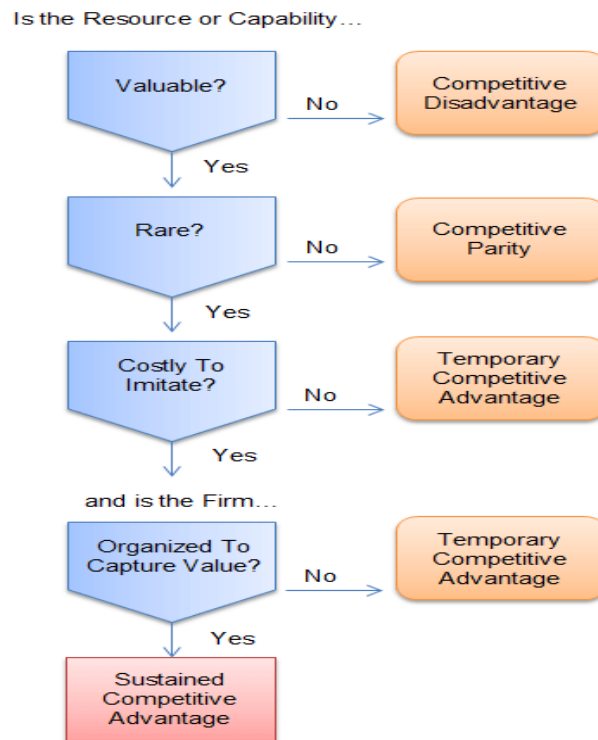


Figure 3. 3: VRIO framework (Rothaermel, 2013, pp. 91)

The relationship between possessed tangible and intangible (e.g. leadership, brand reputation, and tacit knowledge) resources and attainment of competitive advantage was supported by multiple empirical studies conducted in the pharmaceutical industry (Henderson and Cockburn, 1994), professional service firms (Hitt et al., 2001), and the micro and nanotechnology industry (Newbert, 2008). As a result, strategy researchers paid close attention to developing and defining concepts of the resource-based view (Hoskisson et al., 1999).

The following table summarises the primary academic contributions throughout the development of the resource-based view:

<b>Year</b>	<b>Key Contribution</b>	<b>Sector</b>	<b>Author</b>
1984	Business analysis from a resource perspective rather than a product one, to construct barriers to potential entrants.	High-technology manufacturing	Werntfelt
1986	Classification of internal resources into strategic and non-strategic resources to generate above-average profits.	High-technology manufacturing	Barney
1991	The relationship between a firm's resources and sustainable competitive advantage.	-	Barney
1991	Strategy formulation based on internal strategic resources.	Manufacturing companies	Grant
1993	The relationship between a firm's capabilities and industrial analysis.	-	Amit and Schoemaker
1994	The evaluation of the internal capabilities of a firm.	-	Collis
1994, 1997	Dynamic capabilities theory: an extension of the resource-based view that stresses the importance of the regular configuration of possessed resources to match the continuous demand changes in the market.	Manufacturing companies	Teece et al.
2007	Multiple approaches towards the acquisition of strategic resources	Manufacturing companies	Andersén

Table 3. 3: Key academic contributions to the resource-based theory

Nevertheless, the resource-based view came under siege for several reasons:

1. The achievement of a sustainable competitive advantage was seen to be unattainable in the prevalent turbulent business environment (Kraajienbrink et al., 2010). Although several scholars, such as Prahalad and Hamel (1990), posited that internal capabilities (i.e. the outcome of exploiting and integrating a set of resources) are a primary source of sustainable competitive advantage. The findings of Collis (1994) asserted that internal capabilities are vulnerable to erosion or replacement with a higher-order capability.
2. Although the value of possessed resources depends on market-based factors, the resource-based view places limited attention to external analysis during strategy formulation (Priem and Butler, 2001). However, resources are not present in a vacuum; their value is primarily affected by changes in the business environment (Rajapakshe, 2002).
3. The absence of a theoretical model that clearly shows the linkages between resources/capabilities and the achievement of sustainable competitive advantage (De Toni and Tonchia, 2003). The resource-based view struggles with the complexity of establishing the effects of an individual resource/capability on performance (Doz, 1996).

The resource-based view has been heavily criticised for its limited focus on the mechanisms by which resources can construct a competitive advantage (Eisenhardt and Martin, 2000). While the theory recognises the importance of these mechanisms, it does not attempt to explain how these mechanisms work in practice. Hence, the foundation of the resource-based view was considered incapable of creating a sustained competitive advantage in business firms (Teece and Pisano, 1994).

The dynamic capabilities theory, an extension of the resource-based view, evolved to resolve this dichotomy. Teece and Pisano (1994) affirmed that a competitive advantage would be attributed to firms that can integrate and reconfigure internal capabilities in response to the rapidly changing environment. They referred to the dynamic capabilities to be the ability to achieve new forms of competitive advantage by being flexible and fast in responding to external changes (Eisenhardt and Martin, 2000). Lin and Wu (2014) found a positive correlation between the configuration of valuable resources to develop dynamic capabilities and improvement in the performance of firms operating in different sectors.

The dynamic capabilities theory addresses two fundamental issues that were overlooked by the advocates of the resource-based view. The first is the ability of a firm to develop its internal competencies continuously, and the second is using these developed competencies to fulfil regularly changing market requirements. Moreover, the dynamic capabilities theory assigns a prominent role to strategic leadership, in contrast to the resource-based view. Leaders within a firm are responsible for managing the value-creating activities, which organise internal resources to respond to market needs (Salunke et al., 2011).

In conclusion, the shortcomings of the resource-based view elaborated upon the importance of harmonising internal capabilities with changes in the business environment. The continuous configuration of internal capabilities is mandatory in the contemporary changing environment. In this regard, several resource-based view advocates believe that the theory is complementary to the strategic positioning theory developed by Porter (Amit and Schoemaker, 1993; Barney, 1991; Teece et al., 1997). The dynamic capabilities theory is a profound example of a successful combination of the foundational concepts of the resource-based view and strategic positioning theory. The dynamic capabilities theory bridges the development of internal capabilities and responding to the continuously changing market needs. Therefore, the dynamic

capabilities theory is fundamentally relevant to this study since it provides a solid premise for strategizing in the resource intensive, turbulent, construction industry.

The strategic positioning, resource-based view, and dynamic capabilities theories agreed that the objective of strategic analysis is examining the firm as a whole (Rumelt et al., 1994). Nevertheless, the micro-level of a firm received limited emphasis despite the critical influence of the behaviour of individuals/groups on the strategic management process (Guerras-Martín et al., 2014). Therefore, strategy scholars called for a radical shift in academic focus towards the strategic decision-making process to analyse the human role in formulating and implementing strategy (Chakravarthy and Doz, 1992; Johnson et al., 2003).

### **Strategy-as-practise in the new millennium.**

More recently, a new line of strategy research evolved to analyse the behaviours of individuals who affect strategic decision-making in firms (Guerras-Martín et al., 2014). Strategy in the new millennium witnessed the emergence of modern theories, such as ‘Strategy-as-Practice’ and ‘Strategy-as-Discourse’. The former conceives strategy as an internal course of action practised amongst the members of a firm (Johnson et al., 2003), and the latter considers strategy to be the outcome of communicative interactions dominated by influential stakeholders (Pederzini, 2016).

*From a strategy-as-practice perspective, strategy is conceptualized as socially accomplished activity, constructed through the actions, interactions and negotiations of multiple actors and the situated practices upon which they draw (Jarzabkowski, 2007, pp.4).*

The literature on strategy-as-practice heavily focused on the social dynamics involved in formulating, conveying, and implementing a strategy (Johnson et al., 2003). However, the theory still encounters multiple challenges that obstruct its momentum.

<b>Challenge</b>	<b>Analysis</b>
The segmentation of strategic and non-strategic activities (Jarzabkowski et al., 2007)	Strategic activities were defined to be organisational practices that merely contribute to strategy formulation and implementation (Hendry, 2000). However, this definition may contradict the essence of strategy-as-practice since the majority of internal activities are likely to contribute to the implementation of strategy in particular (Johnson et al., 2003).
The benefits of revealing the social interactions related to strategy formulation and implementation	Focusing on the process by which a strategic plan is formed may not yield an economic return (Jarzabkowski et al., 2007). Moreover, the relevance of these explanations is limited to the specific situation to which they pertain.

Table 3. 4: Challenges to the strategy-as-practice theory

In summary, strategic management has been evolving with the support of salient contributions from numerous scientists from different academic fields. The strategic management theories developed over the past decades are still relevant to contemporary firms. The resource-based view and strategic positioning theory can possibly be combined to form a comprehensive model of strategic analysis that tackles the prevalent state of market flux (Teece et al., 1997; De Toni and Tonchia, 2003). The dynamic capabilities theory, an extension of the resource-based view, is an example of the possible combination of the foundational concepts of both theories.

The section to follow reviews the literature pertaining to strategic planning, which is a fundamental component of the strategic management process. Strategic planning has a pivotal role in generating critical strategic decisions that guide the firms into the future (Harrison, 1995).

### 3.3 Strategic Planning

#### 3.3.1 Definition

Strategic planning is one of the most widely adopted managerial processes in contemporary firms (Wolf and Floyd, 2017). It plays a vital role in strategy formulation, including how companies identify main challenges/opportunities, set overriding goals, and choose strategy (Whittington and Cailluet, 2008; Wolf and Floyd, 2017). In a highly influential account, Pearce et al. (1987) defined strategic planning as follows:

*Strategic planning is described as the process of determining the mission, major objectives, strategies and policies that govern the acquisition and allocation of resources to attain organisational goals* (Pearce et al. 1987, pp. 658).

This definition has been adopted by several strategic management scholars, such as Falshaw (2006), Glaister et al. (2009), and Gkliatis and Koufopoulos (2013), as it encompasses the various facets and aims of the planning process. It can be observed that this definition has not stressed the formality of strategic planning since the process is not necessarily formalised in business practice (Murphy, 2011). Nonetheless, Armstrong (1982) and Larsen et al. (2000) contended that formality is a defining feature of strategic planning. However, evidence from Irish professional service firms suggests that strategic planning may be undertaken on an informal basis, and sometimes even unbeknown to the strategist (Murphy, 2011).

Strategic planning has been examined by scholars, mainly from the ‘process’ and ‘content’ theoretical viewpoints (Alford, 2001; Andrews et al., 2009). Content is the outcome of the strategy process, and content theorists seek to explain what a business firm is, or should, do to obtain sustainable competitive advantage (Andrews et al., 2009; Boyne and Walker, 2004). On the other hand, the process viewpoint focuses on the approach and characteristics of the planning process. This research aims to explore both the process and content of strategic



planning within the firms under investigation. Hence, the following sections review the literature pertaining to the approach and characteristics of strategic planning, followed by the planning content.

### 3.3.2 Strategic Planning Theory

Strategic planning ‘process’ is an important stream in the strategic management literature (Papke-Shields et al., 2006). This stream focuses on ‘how’ strategic decisions are made by examining the process characteristics and approach to strategic planning. The necessity for analysing the strategic planning process in different settings stems from the direct impact of the planning process (i.e. design and characteristics) on the realisation of planning benefits (Dean and Sharfman, 1993; Papke-Shields et al., 2006). Dean and Sharfman (1993) ascertained that the ‘how’, or the dimensions of strategic planning process, affects the ‘what’, or the resulting strategy in business entities (Papke-Shields et al., 2006). The approach to strategic planning shapes how strategic decisions are made (Murphy, 2013). Therefore, there is a crucial need to delve into understanding the strategic planning process, especially within Irish construction firms, due to the limited investigation into construction firms in Ireland (Murphy, 2011; 2013).

Scholars have developed numerous theories for the design of the strategic planning process over the past decades. Mintzberg et al. (1998) summarised them into ten strategic planning theories as they emerge from the body of strategic planning literature. They scaled these ten theories into three groups; prescriptive, descriptive, and configuration (Mintzberg et al. 1998). The first three theories are prescriptive in nature; they prescribe how strategies should be formulated in enterprises. The following six theories were less concerned with prescribing ideal strategies. On the contrary, they describe how strategies are actually formulated in business practice according to the intuition, experience, and interests of internal stakeholders, or in

response to environmental changes. Finally, the remaining group is a hybrid between the prescriptive and descriptive theories (Cherp et al., 2007).

<b>Group/Approach</b>	<b>School</b>	<b>Definition</b>
Prescriptive (Planned/Deliberate Approach)	Design School	Strategic planning is a process of conception. Senior managers set a strategic orientation to match internal capabilities with external opportunities.
	Planning School	Strategy formulation is a deliberate formal process. The responsibility of planning is divided between senior managers and professional strategic planners. The output of the strategic planning process is a detailed plan that guides the implementation process through strict control over daily operations and resource allocation.
	Positioning School	Strategy formulation is an analytical process. The aim of engaging in strategic planning is to identify a favourable position in the industry based on a detailed analysis of the market structure.
Descriptive (Emergent/Realised Approach)	Entrepreneurial School	Strategy formulation is a visionary process. A strategy is formed according to the intuitive vision of top leaders; then plans are adjusted upon necessity.
	Cognitive School	Strategy formulation is a mental process. Strategy formulation depends upon the personal knowledge and experience of the managers and employees of a firm.
	Learning School	Strategy formulation is an emergent process. Strategies evolve as a result of continuous learning by senior and lower managers in a firm.

	Power School	Strategy formulation is a process of negotiation. The power school places considerable emphasis on internal politics. This school of planning is based on acknowledging the interests and fears of key individuals. Strategic planning usually arrives at strategic choices that satisfy the interests of principal internal stakeholders.
	Cultural School	Strategy formulation is a collective process. In contrary to the power school, strategy formulation overlooks personal interests to consider the aggregation of the interests of employees.
	Environmental School	Strategy formulation is a reactive process. Strategy evolves in response to the changing and uncontrollable circumstances in the business environment.
Configuration	Configuration School	Strategy formulation is a process of transformation. Strategies are formed through a hybrid between a deliberate planning process and emerging initiatives that arise as a result of the evolution of firms.

Table 3. 5: The 10 schools of strategic planning

Papke-Shields and Boyer-Wright (2017) observed that the ‘planning’ and ‘learning’ theories had received most of the academic and practical attention throughout the history of strategic planning research. These theories reflect the polar extremes of strategic planning in business practice (Patanakul and Shenhar, 2012). While the ‘planning’ theory supports a deliberate, structured, and controlled approach to strategic planning, the ‘learning’ school posits that strategic planning is an adaptive process; strategic plans emerge in response to the external circumstances (Mintzberg et al., 1998).

Earlier strategy authors, such as Ansoff et al. (1974), posited a deliberate and formal approach to strategic planning. The ‘planning’ theory aims to revolutionise the orientation of a firm through a rational, sequential process (Mintzberg et al., 1998). Top management formulates a strategic plan then hands it to the lower hierarchical levels for implementation. A strategic plan is formed after assessing the strengths and weaknesses of an enterprise, taking into consideration the external opportunities and threats. Moreover, Glaister et al. (2009) found that the ‘planning’ theory is widely adopted by large manufacturing and services firms. However, the ‘planning’ theory was heavily criticised for multiple reasons.

According to the ‘planning’ theory:

- Strategic planning is a rational and linear process (Wolf and Floyd, 2017).
- The future is viewed as an extension of the present (Hamel, 1996; Mintzberg, 1990).
- Strategy formulation is the responsibility of senior managers only (Loera, 2014).

These simplified concepts contradict with management complexities in business firms (Noda and Bower, 1996). The ‘planning’ theory overlooks the social and political facets of strategy formulation in practice (Mintzberg, 1994). Grant (2003) and Vila and Canales (2008) argued that viewing the future as an extension of the present is not compatible with today’s rapidly changing business environment. Likewise, the high emphasis placed on the formality of the strategic planning process stifles innovation and creativity (Mintzberg, 1994). Therefore, the output of deliberate planning is often limited to the repetition of past strategies or imitation of other firms (Desai, 2000; Hamel, 1996). Therefore, it can be argued that a firm relying on the deliberate approach to strategic planning is not strategizing; instead, it is engaging in systematic planning for pursuing incremental improvements.

*“Strategy is revolution; everything else is tactics.” (Hamel, 1996, pp. 70)*

Furthermore, the 'planning' theory was criticised for granting the responsibility of strategic decision-making to senior managers only (Loera, 2014). The modest involvement of middle and junior managers was found to have adverse implications on the application of strategic planning in practice (Dandira, 2012; Kachaner et al., 2016). Limiting the role of lower hierarchical levels to compliance with top management decisions was denounced for demotivating staff, reducing their awareness with a strategic orientation, and dismissing critical input to the planning process (Kachaner et al., 2016). Moreover, the lack of involvement of middle/line managers in strategic planning was blamed for creating a gulf between strategy formulation and strategy implementation (Gimbert et al., 2010). The implications of segregating both counterparts result in strategic management failure, inhibiting continuous learning, restricting creativity, and postponing strategic responses to market changes (Giraudeau, 2008; Grant, 2003; Mintzberg, 1990; Ocasio and Joseph, 2008; Pollard and Hotho, 2006).

Mintzberg (1994) challenged the 'planning' theory by arguing that a strategy cannot be created in a rational linear process (French, 2009). According to Mintzberg, a formal and rational planning process creates a plan instead of a strategy (Mankins and Steele, 2006). Deliberate strategic planning was deemed to be an extension to annual budgetary plans; it does not result in a radical change in the strategic orientation of a firm (Mintzberg et al., 1998; French, 2009). As a result, Mintzberg (1994) proposed that the 'learning' theory of strategic planning is better suited to the contemporary forms of organisational structures (e.g. project-based firms).

According to the 'learning' theory, strategy-making is seen as an iterative process that involves the regular evaluation of implementation feedback. This evaluation leads to the development of new strategies that match rapid changes in the business environment (Gkliatis and Koufopoulos, 2013). While strategic initiatives emerge from middle/line managers who are

very close to daily activities and clients, the role of top management is limited to facilitating internal collaboration and knowledge sharing (Loera, 2014).

The 'learning' theory was developed based on market observations of Mintzberg and Waters (1982), Mintzberg and Hugh (1985), and Pascale (1984) asserting that a realised strategy in firms regularly deviates from an intended strategy due to unprecedented market changes. Strategic configurations take place with no predictable pattern to revolutionise a strategic orientation, remove a key constraint towards fulfilling strategic objectives, or escape saturated markets towards emerging ones (Mintzberg and Waters, 1982).

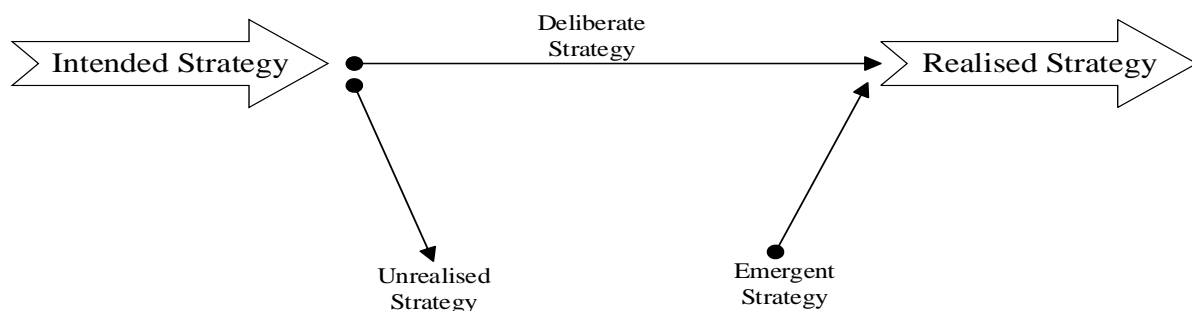


Figure 3. 4: The basic form of strategy formulation (Mintzberg and McHugh, 1985)

Consistent with these findings, Grant (2003) found that strategic initiatives in the turbulent oil and gas industry usually emerge at a project level. Intended strategic plans were found incompatible with the contemporary state of market turmoil (Kachaner et al., 2016; Rudd et al., 2008). Therefore, strategic planning has become a bottom-up process primarily. Strategic decisions were mainly undertaken at the business unit and divisional levels to reach faster decisions in response to the fast-changing external circumstances. The role of corporate executives was limited to intervening to question, criticise, and cajole business managers (Grant, 2003).

In recent years, strategic planning theory has undergone significant transformation towards integrating both the ‘planning’ and ‘learning’ theories of strategic planning (Gimbert et al., 2010; Meissner, 2014; Wolf and Floyd, 2017). Strategic planning theory is evolving towards integrating the rationality of the ‘planning’ theory and the adaptation of the ‘learning’ theory into a single integrative approach (Papke-Shields and Boyer-Wright, 2017; Wolf and Floyd, 2017). A ‘rational-adaptive’ planning approach was found to lead to more successful planning in manufacturing and information technology firms (Papke-Shields et al., 2002; Segars et al., 1998).

In summary, the ‘planning’ and ‘learning’ theories of strategic planning have gained the most scholarly and practical attention over the past decades (Freedman, 2013). The ‘learning’ theory evolved in response to the failure of deliberate planning in coping with market turbulence (Grant, 2003; Mintzberg, 1994). Recently, strategic planning theory has evolved towards integrating aspects of the ‘planning’ and ‘learning’ theories to develop a rational-adaptation, or a planned-emergent, approach of strategic planning. The integration of both theories can consolidate the strategic planning process in firms facing turbulent market conditions. Corporate executives can construct a strategic vision and communicate it to lower managerial levels. Nevertheless, the adaptation of this vision with regular market changes remains the sole responsibility of business unit/line managers.

The approach to strategic planning may be planned, emergent, or indeed a planned-emergent approach reflecting the necessity for a systematic yet flexible strategic planning process. A key influence in determining the planning approach is the strategic type of a business firm. The strategic type explains how a business firm aims to compete in the market. The typology of Miles and Snow (1978) is a prominent classification of the strategic types of business units

(Olson et al., 2005). Miles and Snow identified four different approaches to strategic planning to acquire a sustainable competitive advantage over rivals

<b>Strategic Type</b>	<b>Definition</b>
Prospector	Innovative companies that aim to grow through innovation and exploitation of favourable opportunities.
Defender	The concentration is on defending the current market share and maintaining stable growth.
Analyser	The primary aim is to maintain the current market share, then growth and innovation are secondary goals.
Reactor	These companies do not have a consistent strategic approach. A reactor responds to the environmental posture with no anticipation to the future events.

Table 3. 6: Miles and Snow (1978) typology

Over the last three decades, the strategic typology developed by Miles and Snow (1978) has received widespread general acceptance within the field of strategic management and organizational theory (Hambrick, 2004). The typology's longevity is attributed to its simplicity and industry independent nature (Hambrick, 2004). Several typologies for strategic classification exist in the strategic management literature, such as Abell's (1980) strategic windows, Miller's (1992) high-performance gestalt, and Treacy and Wiersema (1995) market leadership taxonomy. Nevertheless, the principal difference between these classifications and Miles and Snow taxonomy lies in the focus of the latter on blending the analysis of a firm's internal strengths and weaknesses along with its external environment.



Miles and Snow (1978) identified three interlinked decision domains that define a firm's strategic orientation. The entrepreneurial domain, which focuses on product/market selection. The administrative domain, which focuses on the organisational structures and internal relationships within the firm. Finally, the engineering domain, focusing on the processes required to bridging the space between the first two domains. The examination of these three domains reveals their potential categorisation as three main dynamic capabilities required by business firms to compete effectively in any industry.

The three domains reflect a firm's capability to sense external opportunities and reconfigure its resources, structure, and processes to maintain a competitive advantage in a mutable environment. Therefore, it can be concluded that Miles and Snow taxonomy for exploring strategic types is highly relevant to the study in hand due to its compatibility with the dynamic capabilities theory, the lens applied to explore the strategic management process in the target industry. Moreover, the taxonomy is applied in this study since it is particularly useful for the empirical examination of an industry/sector where exploratory research is being undertaken (Murphy, 2011).

The strategic type of a business firm significantly influences its approach to strategic planning. 'Defenders' engage in little or no product/market development; thus, they do not regularly scan the business environment to maintain a business-environment alignment. As a result, Miles and Snow positioned 'defenders' as deliberate in their orientation and thus inclined towards a planned strategy that rarely deviates from predetermined goals according to market changes (Sollosy, 2013). At the other end of the continuum are 'Prospectors'; with a tendency towards a more emergent approach to strategic planning due to their continuous attempt to pioneer product/market development.

‘Analysers’ are more likely to reside somewhere between the two extremes, while ‘reactors’ attempt ad-hoc opportunistic deviations from their strategy or never develop a strategy (Walker et al., 2003). Finally, Miles and Snow (1978) posited that three of the four identified strategic archetypes; prospector, analyser, and defender, should perform well in any industry and, and should also outperform ‘reactors’ due to their lack of a consistent strategy.

While this section discussed the different theories of strategic planning as well as strategic types, the following section examines the characteristics of the strategic planning process as well as the impact of external uncertainties on planning dimensions.

### 3.3.3 Strategic Planning Characteristics

The complexity of strategic planning is compounded by the numerous characteristics that shape the planning process (Murphy, 2011). Investigating the characteristics of the planning process is crucial since they largely contribute to the realisation of strategic planning benefits (Papke-Shields et al. 2006; Obeng and Ugboro, 2008). For instance, Dean and Sharfman (1993) asserted that the process involved in strategic decision-making affects the success of the resulting strategic decisions.

*“Managers have the power to influence the success of strategic decisions, and thus the fortunes of their organizations, through the processes they use to make key decisions.”* (Dean and Sharfman, 1993, pp. 399)

Several scholars, such as Gkliatis and Koufopoulos (2013), McLarney (2003) and Murphy (2011) sought to identify the characteristics of strategic planning. However, there is no clear consensus on an optimal array of necessary planning dimensions to develop effective strategies (Murphy, 2011). Planning characteristics widely vary between firms of different size, experience, and industry sector (Murphy, 2011).

The following table summarises the main planning dimensions investigated in the literature on the strategic planning process:

<b>Strategic Planning Characteristics</b>	<b>Country</b>	<b>Sector</b>	<b>Study</b>
Formality, comprehensiveness, planning tools, plan horizon, and resistance to change.	USA	Large corporation operating in diverse sectors	Ramanujam et al. (1986)
Comprehensiveness, planning tools, and functional integration.	USA	Tourism	Athiyaman and Robertson (1995)
Comprehensiveness, planning tools, participation, and functional integration.	USA	Banking	Karger and Parnell (1996)
Formality, comprehensiveness, participation, planning tools, and plan horizon.	USA	Large corporations operating in diverse sectors	Yasai-Ardekania and Haug (1997)
Formality, comprehensiveness, and evaluation.	USA	Health	Boyd and Reuning-Elliott (1998)
Formality, comprehensiveness, and participation.	UK	Tourism	Phillips and Moutinho (1999)
Formality, comprehensiveness, participation, flow, time horizon, and frequency.	Greece	Transportation	Koufopoulos et al. (2005)
Formality, participation, planning tools, and planning horizon.	UAE	Diverse sectors	Elbanna (2013)
Formality and planning tools.	Turkey	Manufacturing	Efendioglu and Karabulut (2010)

Participation, comprehensiveness, planning tools, time horizon, and functional integration.	Jordan	Tourism	Aldehayyat (2011)
Formality and participation.	Lebanon	Health	Saleh et al. (2013)
Formality, comprehensiveness, participation, and intensity.	USA	Diverse sectors	Papke-Shields and Boyer-Wright (2017)

Table 3. 7: Strategic planning characteristics as examined in the literature

As shown in Table 3.7, the empirical research conducted across different industries/countries have emphasised the most common and essential dimensions for examining the strategic planning process: formality, comprehensiveness, participation and flow, planning tools, and planning horizon. Therefore, the scope of this study is aligned with these dimensions to explore the strategic planning process in Irish construction contracting firms.

Potential exists to expand the scope of analysis to include other characteristics, such as leadership style and motivation theory, in pursuit of understanding personal motives and barriers to strategic planning. Nonetheless, the analysis to follow is confined to a specific set of dimensions, since including these social characteristics require different philosophical approach than that one adopted in this study. However, this remains one of the limitations of the present study.

#### 3.3.3.1 Planning formality

The formality of the strategic planning process refers to the presence of structure, techniques, policies, and procedures that guide the planning process (Boateng et al., 2015; O'Regan and Ghobadian, 2007). A 'written strategic plan' is often used as a measure of planning formality (O'Regan and Ghobadian, 2007). Brinckmann et al. (2010) posited that the benefits of formalising strategic planning are the explicit inclusion of long-term planning on the corporate

agenda and raising the awareness of middle/line managers with the planning output. On the other hand, overly formal planning was denounced for squandering resources with no feasible return, as several researchers observed in educational organisations (Linn, 2008; Sokol, 1992). Likewise, inflexible strategic plans can obstruct the emergence of opportunities through continuous experimentation and market scanning (Kachaner et al., 2016). Therefore, the formalisation of strategic planning can have different consequences according to the degree of planning formality.

Perry (2001) defined the degree of planning formality as the extent of using a structured planning process that engages many stakeholders to develop a written plan. The degree of planning formality is likely to be influenced by several internal and external factors, such as the adopted strategic planning theory (e.g. planning and learning theories), firm size, industry sector, and degree of environmental turbulence.

Segars and Grover (1999) found no influence from the adopted planning theory, either 'planning' or 'learning' theory, on the degree of formality. Although Mintzberg (1994), the founder of the 'learning' theory, stressed that business firms should avoid formal planning since it inhibits flexibility, the findings of Segars and Grove (1999) demonstrated that firms could adopt the 'learning' theory and undertake strategic planning with a high degree of formality. The findings of Segars and Grove (1999) were consistent with the argument of Ansoff (1991), who asserted that formality should not be confused with flexibility.

Kraus et al. (2006) posited that firm size is a primary determining factor of the degree of planning formality. Multiple studies revealed that large firms in the manufacturing and services sectors embark on high planning formality in comparison to small and medium enterprises that often rely on intuitive planning (Aldehayyat, 2011; Kraus et al., 2006; Stonehouse and Pemberton, 2002). Growth of business firms usually increases the degree of planning formality

(Elbanna, 2008). The growth of business scope, management layers, and operating units predicates the elevation of planning sophistication to foster the cooperation between internal management levels (Elbanna, 2008; Flamholtz and Kurland, 2006).

Kraus et al. (2006) found a positive correlation between the degree of planning formality in small/medium enterprises and business performance, measured by growth in firm size. These findings are important in understanding the cause and effect relationship between firm size and planning formality. Although the growth of firm size yields formal strategic planning, the formalisation of planning can also expand the firm size. A primary limitation of the Kraus et al. (2006) study is that performance improvement was only measured in terms of growth in the number of employees. Profitability and turnover growth (i.e. the crucial measures for profitable firms) were not taken into consideration. Likewise, several industry sectors were not investigated in the study, such as the agricultural and construction sectors.

Apart from the internal characteristics of the firm, the influence of external factors on planning formality remains inconclusive. Yasai-Ardekani and Haug (1997) posited that firms operating in rapidly changing and highly competitive environments are more likely to avoid formalised planning. Regular market changes mandate a high degree of flexibility and continuous strategic manoeuvring away from formal plans (Kachaner et al., 2016). However, this argument was later refuted by other scholars, such as Dincer et al. (2006), Falshaw et al. (2006), Gkliatis and Koufopoulos (2013). They asserted that market dynamism should be met with elevated planning formality. These researchers agreed that the identification of future threats demands formalised procedures for data gathering and analysis.

In summary, the literature on strategic planning demonstrated that planning formality, rather than rigid planning, has a positive impact on the outcomes of the planning process (Brinckmann et al., 2010). Firm size is a primary determinant of the degree of planning formality. On the

other side, the relationship between planning formality and the industry sector was investigated across a limited number of industries. It was advised that formal strategic planning should be supported with the extensive gathering and analysis of internal and external information. Hence, the following section discusses the comprehensiveness of the strategic planning process.

#### 3.3.3.2 Planning Comprehensiveness

Planning comprehensiveness refers to the exhaustive gathering and analysis of information to develop a strategic plan (Fredrickson and Mitchell, 1984). Comprehensiveness warrants close attention since that rigorous analysis of internal and external factors (e.g. resources, staff, economic growth), before developing a strategic plan is positively associated with the effectiveness of strategic planning (Killen et al., 2005).

Internal factors (e.g. strategic type and adopted planning theory) and external factors (e.g. environmental uncertainty) usually determine the degree of planning comprehensiveness (Murphy, 2011). Miles and Snow (1978) hypothesized that the degree of comprehensiveness is linked to the strategic type of business firms. Defenders, firms aiming to protect their market shares, focus on planning comprehensiveness (i.e. the amount of data collected on each internal/external factor). On the other hand, prospectors, firms in a continuous state of development, prioritise the breadth of data gathering (i.e. number of internal/external factors included in the data gathering process) over comprehensiveness (Piest, 1994).

Regarding firm size, Dincer et al. (2006) found that firm size has a direct impact on the degree of planning comprehensiveness and breadth. Multinational corporations adopt a vast repertoire of techniques for data gathering in comparison to smaller firms (Dincer et al., 2006). It can be concluded that competing in different geographical areas predicates higher degree of planning comprehensiveness and breadth. Multinational corporations are exhaustive in

gathering/analysing data to gain valuable insights into the diverse markets and clients they serve.

The personal experience of top managers was found to be another factor that influences the comprehensiveness of strategic planning. Findings from the healthcare sector demonstrated that executives with a medical background were less likely to focus on planning comprehensiveness (Karmali, 2012). They relied on their knowledge and experiences to develop strategic plans, in comparison to executives with a non-medical background who intensively focused on gathering and analysis data. These findings imply that a high degree of planning comprehensiveness requires multidisciplinary engagement in the planning process.

In summary, the degree of planning comprehensiveness tends to be determined according to the strategic type, firm size, and personal background of senior managers. Meeting contemporary challenges warrants exhaustive market/macroeconomic analysis to inform effective strategic decisions. However, the timeliness of decisions, which is negatively proportional with comprehensiveness, is mandatory to maintain a prompt response to external changes (Schraeder, 2002). Therefore, it can be concluded that exhaustive data gathering/analysis positively influence the effectiveness of strategic planning if they do not breach reasonable time limits. The next section discusses the following important constructs of the strategic planning process: participation and flow.

#### 3.3.3.3 Participation and Flow

Participation reflects the extent of involvement of employees, at various organisational levels, in the planning process (Murphy, 2011). Participation in strategic planning has come under investigation by numerous scholars, including Elbanna (2008), Gimbert et al. (2010), Kachaner et al. (2016), Murphy, (2011), and Schraeder, (2002). They agreed that the engagement of internal and external stakeholders in the planning process has a positive impact on the planning



outcomes (Kachaner et al., 2016; Miller and Cardinal, 1994; Rudd et al., 2008; Song et al., 2015). The broad participation of organisational members raises their commitment to the planning and implementation of strategy (Cooperstein and Barthelemy, 2003; Kachaner et al., 2016; Schraeder, 2002). In contrary, the dictating of strategic planning by senior managers was denounced for relegating strategic plans to oblivion (Kachaner et al., 2016)

The extent of engagement of employees in strategic planning is determined mainly by the firm's planning approach and degree of environmental uncertainty. Segars and Grover (1999) found that the adopted planning theory has grave impact on the participation of employees in strategic planning within manufacturing and services firms. Firms adopting the 'planning' theory displayed narrow participation in the process, in comparison to firms espousing the 'learning' theory, which supports the broad participation of internal stakeholders in strategic planning.

The 'learning' theory is widely adopted by firms competing in uncertain industry environments (Mintzberg, 1994). Moreover, it was observed that environmental uncertainty is adversely correlated with the engagement of lower management layers in strategic planning (Gkliatis and Koufopoulos, 2013). However, the findings of Kachaner et al. (2016) asserted that environmental turbulence should be met with extensive participation in strategic planning. The involvement of line managers enriches the planning process with valuable insights and alternative solutions (Schraeder, 2002).

Another relevant characteristic to the participation in strategic planning is the flow of strategic initiatives. The planning flow can be either 'top-down' or 'bottom-up' (Dutton and Duncan, 1987). The former predicates that strategic planning is the sole responsibility of senior managers, while the latter supports the initiation of strategic planning at bottom organisational levels (Murphy, 2011). Narrow participation means that the flow of strategic plans must be

top-down since the responsibility of planning is granted to top management only. On the other hand, broad participation implies that the flow of strategic initiatives could be either top-down or bottom-up.

Theoretically, both forms of planning flow reflect the divergence between the ‘planning’ and ‘learning’ theories of strategic planning (see section 3.3.2). The ‘planning’ theory magnifies the role of top management in determining the strategic orientation of a firm; hence it is likely to be correlated with top-down planning. On the contrary, the ‘learning’ theory perceives strategic planning to be an iterative process supported by initiatives emerging from lower hierarchical levels. Therefore, the ‘learning’ theory tends to be accustomed to the bottom-up flow (Murphy, 2011). Nevertheless, exogenous factors hold a considerable role in enforcing the flow of strategic initiatives (Desai, 2000; Gkliatis and Koufopoulos, 2013).

Desai (2000) observed that bottom-up flow became the norm among large firms facing severe competitive pressures. Firms were inclined to replace the conventional product/service orientation with a client orientation to satisfy the volatile customers’ demands (Killen et al., 2005; Koutsoukis et al., 2000). This orientation shift mandates a sizeable role of the frontline managers in strategic planning due to their regular interaction with clients (Decker and Höppner, 2006). Therefore, it can be concluded that the contemporary market flux is expected to put an end to the dictation of top managers to strategic planning.

#### 3.3.3.4 Planning Tools

Strategic planning complexity is reflected in the numerous tools and techniques being developed to support the planning process (Murphy, 2011). Analytical tools are used to gain insights into possessed resources, raise the awareness of managers with the business environment, establish performance indicators, simplify complex issues, and facilitate internal communication (Aldehayyat, 2011).

A plethora of tools and technique were developed to facilitate data collection/analysis. The range of planning tools diverges in terms of scope and methodological procedures. Frost (2003) displayed a full glossary of planning tools to be utilised in strategic planning. The planning tools ranged from the most common ones, such as SWOT and ‘critical success factors’ (CSF), to sophisticated tools like ‘metagame analysis’ (Aldehayyat and Anchor, 2008; Sokol, 1992). However, there remains scepticism regarding the application of planning tools in practice.

The application of planning tools in developing strategic plans remains modest in several industries, such as construction (Murphy, 2011). Findings from the hospitality sector revealed that firm size is a primary determinant of the intensity of utilising planning tools, in comparison to firm age or the business sector (Aldehayyat, 2011). This conclusion was aligned with multiple studies revealing that large firms are more likely to pay close attention to planning instruments in comparison to smaller ones which tend to plan intuitively (Dincer et al., 2006; Kraus et al., 2006; Stonehouse and Pemberton, 2002). However, none of these studies sought to find a correlation between the use of planning tools and the effectiveness of strategic planning.

Another factor that influences the utilisation of planning tools is the degree of environmental turbulence. Dincer et al. (2006) found that the degree of industry uncertainty in the manufacturing sector influences the selection of planning tools. Manufacturing firms facing volatile economic conditions relied on the following tools:

- Economic forecasting: the process of attempting to predict the future condition of the economy using a combination of essential and widely followed indicators.
- Scenario planning: aims to explore how the future might unfold, and what can the best response to this prediction.

These tools helped manufacturing firms anticipating changes in the uncertain industry environment (Dincer et al., 2006). Therefore, it can be summarised that firm size and the degree of market turbulence determine the extent and type of planning tools incorporated in strategic planning. The next section discusses the time horizon that strategic plans cover in enterprises.

#### 3.3.3.5 Plan Horizon

The planning horizon refers to the duration covered by the strategic planning process (Murphy, 2011). Several studies reported that the time horizon of a strategic plan often ranges from three to five years (Dansoh, 2005; Dincer et al., 2006; Gkliatis and Koufopoulos, 2013; Murphy, 2011; Oyewobi et al., 2015). These findings were consistent across both the manufacturing, services, and construction sectors. The three-to-five-year planning range is dominant due to the shortcomings of annual plans that can deviate organisational focus towards budgetary control. On the other side, planning over the five-year threshold was observed amongst a small number of firms (Stonehouse and Pemberton, 2002). However, planning for longer horizons is unlikely to be compatible with the present turbulent industry environment since regular market changes demand planning for shorter durations.

Several factors influence the time horizon of strategic plans in business practice. The degree of market turbulence tends to shorten the time horizon of strategic plans (Kraus et al., 2006). The complexity of forecasting the future with high accuracy in a turbulent business environment tends to shorten the period covered by a strategic plan. Moreover, firm size is one of the primary factors that determine the time horizon of strategic plans. Small companies were found to be in favour of planning for shorter horizons in comparison to large organisations (Kraus et al., 2006). The inclination of small firms towards planning flexibility shortens the time span of their plans.

It can be summarised that the dimensions of strategic planning have a direct impact on the outcomes of planning; and therefore, the effectiveness of strategic planning in business practice. The strategic planning process is shaped through an integrative relationship between internal and external factors, especially firm size and degree of environmental uncertainty, to achieve future goals. Evidence from numerous studies conducted across different business sectors, such as Aldehayyat (2011); Gkliatis and Koufopoulos (2013); Papke-Shields and Boyer-Wright (2017); and Saleh et al. (2013) suggest a moderate level of planning formality, considerable comprehensiveness, broad participation, deployment of relevant planning tools, and a three-to-five-years plan horizon. Nevertheless, most of these studies focused on the manufacturing and services sectors. On the other side, the strategic planning characteristics in construction firms received modest academic attention. Therefore, there is a critical need to explore the dimensions of the strategic planning process in construction contracting firms in Ireland.

It was observed that the degree of environmental turbulence has a direct influence on the characteristics of strategic planning in business firms. Hence, the following section investigates the impact of the market uncertainty on the design and characteristics of the strategic planning process in business practice.

#### 3.3.4 Strategic Planning in Turbulent Environments

Companies are environment-dependent and environment serving (Ramírez and Selsky, 2016). It has been long established that a firm's success is based on its interaction with the surrounding environment (Ansoff, 1987). The first chapter ascertained that the construction industry in Ireland is inherently characterised with environmental turbulence. Likewise, the previous sections revealed that the degree of environmental uncertainty largely influences the dimensions of the planning process. Therefore, it remains vital to explore the implication of industry uncertainty on the strategic planning process in business firms.

The degree of uncertainty in the global business environment has been escalating since the last quarter of the 20th century (Vecchiato, 2015). Junnonen (1998) defined environment turbulence as the significant and frequent economic, societal, and industrial transformation that takes place within a short period. Turbulent environments, such as the Irish construction industry, are characterised with having frequent/unpredictable changes that create risks and uncertainties (Bourgeois and Eisenhardt, 1988; Calantone, 2003); sharp discontinuities in clients preferences, consumption demand, and growth rates (Glazer and Weiss, 1993); temporary competitive advantages that are continually created and eroded (Chakravarthy, 1997); and low barriers to market entry/exit that continuously change the industry structure (Chakravarthy, 1997).

The increased volatility of the business environment makes systematic strategic planning more difficult (Grant, 2003). Amid turbulent conditions, managers struggle to understand major events occurring in their industries (Loveridge and Saritas, 2012). Firms struggle to gather accurate information regarding future political, economic, and social changes due to the unpredictability of the industry environment. Therefore, rapid and unprecedented changes require a strategic planning process characterised with considerable flexibility (Grant, 2003).

The suitability of the 'planning' theory to strategic planning within firms operating in turbulent conditions can be put into question. A turbulent business environment defies the key assumptions of the 'planning' theory of strategic planning since it is only applicable in stable and predictable industries (D'Aveni et al. 2010; Prahalad and Hamel, 1994). The volatility of the contemporary business environment demands the adoption of the emergent approach, or the 'learning' theory, to strategic planning since it encourages flexibility and adaption to external changes (Grant, 2003). This view is supported by Grant (2003), who found that the inherent uncertainty in the oil industry obstructs the development of a deliberate/rational

strategic plan that covers a long period. Therefore, prevalent industry uncertainty in the Irish construction industry demands a flexible, yet systematic, approach to strategic planning to maintain business alignment with market changes.

Vecchiato (2015) elaborated on the proposition above of Grant (2003) to distinguish between the two forms of environmental changes that can affect business entities—continuous drives of change and discontinuous drivers of change:

<b>Continuous Drivers of Change</b>	<b>Discontinuous Drivers of Change</b>
This form of change leads to incremental developments in the value chain and products/services of the industry; however, it preserves the main components of the industry to a substantial extent (i.e. rivals, suppliers and customers). Continuous drivers of change usually affect mature industries where customer needs are well-established and stem from the microenvironment (e.g. political and economic factors).	This form of change generates radically new products and services in an industry regularly. The disruption of discontinuous changes leads to the consistent emergence of rivals, suppliers, and customers' needs (Adner, 2002). Discontinuous drivers of change usually affect new industries and those that rely heavily on technology.

Table 3. 8: Forms of the industry environment changes

The above forms of change reflect the polar extremes of market changes that can affect business entities. A business firm may face either continuous or discontinues drivers of change according to the industry within which it operates. Vecchiato (2015) argued that the chosen approach to strategic planning should be aligned with the form of environmental change facing a business firm. Companies operating in industries encountering continuous drivers of change, such as the construction industry, should adopt the ‘planning’ theory to develop strategic plans built on precise environmental analysis. Vecchiato (2015) found that firms experiencing continuous drivers of change can plausibly anticipate the evolution of their industries using

foresight techniques. However, a limitation to the above findings lies in their focus on manufacturing firms alone.

The effectiveness of proposed foresight techniques (e.g. environmental scanning, scenario planning) in anticipating different kinds of environmental changes can be questioned. Future forecast techniques can be accurate in the short term; however, they are non-reliable in the long-term since drivers of change interact in unforeseeable ways (Eisenhardt et al., 2010). Several exterior incidents, such as the prevalent COVID-19 pandemic, was difficult to anticipate by global business firms, including construction firms. Therefore, it is unlikely that a planned, rational, approach to strategic planning can be alone compatible with the contemporary state of market flux.

The conclusion outlined above provides strong evidence to support the adoption of a planned-emergent approach to cope with environmental turbulence. The merge of 'planning' and 'learning' schools results in a higher level of comprehensiveness, systematic, and flexible process of strategic planning (Murphy, 2011). The resulting strategy of this approach can take the form of a rational plan or emergent response according to the unique context within which a firm operates. The study in hand aims to explore the strategic planning approach adopted by construction contracting firms operating in the Irish turbulent business environment. One of the study objectives is to find out whether Irish contracting firms adopt a planned, emergent, or a planned-emergent approach.

The impact of environmental turbulence on strategic planning extends to the dimensions of the planning process. Several authors posited that formalised strategic planning should be avoided in uncertain environments since formality elevates determinism and inflexibility (Grant, 2003; Yasai-Ardekani and Haug 1997). The high emphasis placed on planning formality usually stifles innovation and creativity (Mintzberg, 1994). However, findings from the manufacturing



and service sectors contradicted with the above-mentioned inductive arguments (Brews and Purohit, 2007; Dincer et al., 2006; Falshaw et al., 2006; Gkliatis and Koufopoulos, 2013). Formalised planning, referring to the establishment of systematic procedures for data gathering/analysis, can leverage planning comprehensiveness and helps in identifying future threats. Therefore, formalised strategic planning process is suggested for Irish contracting firms since it can help to inform more effective strategic decisions (Falshaw et al., 2006; Killen et al., 2005).

Another strategic planning dimension influenced by environmental turbulence is the planning horizon. Although strategic planning is fundamentally concerned with long-term orientation (Johnson and Scholes, 1999), planning for relatively shorter time horizons is the norm across firms operating in turbulent environments (Dincer et al., 2006; Kraus et al., 2006). The complexity of forecasting future environmental conditions calls for planning for relatively shorter horizons. Likewise, broad involvement in strategic planning can leverage the process with a plethora of different solutions to emerging issues imposed by the exterior environment (Kachaner et al., 2016; Schraeder, 2002). Therefore, the prevalent state of market turbulence in Ireland demands planning for shorter horizons and engaging lower hierarchical level in the strategic planning process within construction firms.

It can be summarised that environmental turbulence is a key challenge to the fundamental premise of strategic planning; gathering accurate information about the present and future of the industry environment (Ansoff, 1991; Porter, 1980). The integration between the ‘planning’ and ‘learning’ theories is suggested in uncertain conditions (Gimbert et al., 2010; Wolf and Floyd, 2017). While an emergent approach is mandatory in response to unprecedented environmental events, a formal/linear approach can anticipate the incremental evolution of mature industries, such as the construction industry (Vecchiato, 2015). This conclusion was

drawn from academic investigations targeting manufacturing and services firms (Brews and Purohit, 2008; Dincer et al., 2006; Falshaw et al., 2006; Gkliatis and Koufopoulos, 2013). Therefore, an evidence-based inquisition to explore the impact of environmental turbulence on the strategic planning process in the construction industry in Ireland is deemed necessary.

The above sections examined the type, approach, and characteristics of the strategic planning process. The following sections investigate strategic planning from the ‘content’ theoretical viewpoint. The literature on the different outcomes of the strategic planning process in business firms is to be reviewed.

### 3.4 Strategic Choices

Porter (1980) posited that business managers engage in strategic planning to inform a strategic choice. A strategic choice was defined as the selection of a specific course of action that is supposed to bring enterprise desired long-term results (Schoemaker, 1995). The advocates of the resource-based view, such as Barney (2001) and Teece et al. (1997), posited that senior directors determine a strategic orientation according to their possessed resources. However, a more recent academic inquisition revealed that a strategic choice is driven by forces external to business entities (Rond and Thietart, 2007).

The following table shows divergent theoretical concepts on what drives a strategic choice in business practice.

<b>The Resource-based View</b>	<b>The Deterministic View</b>
The resource-based view supports the conception of managerial control over strategic choices (Barney, 1991; Rumelt, 1991). The acquisition, allocation, and arrangement of unique resources can contribute towards creating favourable competitive advantage and overcome the negative implications of external pressures (Rond and Thietart, 2007). However, limited attention has been devoted to harmonising internal resources with external opportunities and threats.	The deterministic view of strategic management considers a strategic choice to be a contingent response to the forces of the industry (Child, 1997; Porter, 1980) and institutional regulations (Ang et al., 2015). Strategic orientation is a consequence of the external opportunities and threats. Hence, the identification of optimal strategic choices predicates exhaustive market analysis. However, the acquisition and allocation of resources to achieve business goals have not received enough attention.

Table 3. 9: The deterministic view versus the resource-based view

In table 3.9, the resource-based and deterministic views sought to explain how a strategic choice is informed. However, none of these views is conclusive in describing how managers determine a strategic orientation. Therefore, there is a need for a new perspective that best describes how senior managers decide the strategic orientation of their firms.

A strategic contingency perspective best describes the determination of a strategic choice in business practice. The contingency perspective outlines a balanced view of aligning internal capabilities with the external environment (McLarney, 2003). Strategic decision-making in business practice mainly depends on the inherent capabilities of a firm (Barney, 1991; Rumelt, 1991); nevertheless, it is still influenced by opportunistic and problematic conditions imposed by the external environment (Child, 1997; Reger et al., 1992). Therefore, a strategic choice

depends on internal capabilities; however, it is still affected by external conditions. The strategic contingency perspective is aligned with the dynamic capabilities theory; the lens applied to explore the strategic management process in Irish construction contracting firms.

### 3.4.1 Corporate Strategy

Corporate strategy is hierarchically the highest strategic plan of a firm, which defines the corporate overall goals and direction (Bowman and Helfat, 2000; Hunger and Wheelen, 2010). A well-defined corporate strategy establishes the competitive identity of an organisation, division of business units, and the mode of operation: either business growth, stabilisation of operations or business retrenchment (Gopinath, 2003).

Several scholars, like Carroll (1993), Ghemawat and Costa (1993), Hoskisson et al. (1993) argued that corporate strategy adds no value to business entities. They found no significant difference in business performance between firms that have a corporate strategy versus others who do not devote attention to strategy. Their conclusions were questioned by Bowman and Helfat (2000), who found that corporate strategy is vital to the success of large corporations. However, the relationship between corporate strategy and business success is indirect. The positive influences of corporate strategy stem from its diverse functions, such as the identification of business scope, formulation of business units' strategies, allocation of resources to business units, coordination between business units, and the evaluation of the performance of business units (Bowman and Helfat, 2000; Grant, 2002).

Corporate strategy aligns a firm's objectives, structure, and resources with the external environment (Bowman and Helfat, 2000; Köhler and Zerfass, 2019). The absence of this alignment leaves business entities vulnerable to economic downturns (Furrer et al., 2008). Therefore, it can be concluded that the functions of corporate strategy are deemed vital for Irish contracting firms aiming to align their internal business processes with the turbulent exterior

market. This study aims to explore the extent of reliance on corporate strategy in Irish contracting firms, as well as their corporate strategic choices.

### 3.4.2 Business Strategy

The accomplishment of a corporate strategy requires a plan that transforms strategic goals into business functions (Hunger and Wheelen, 2010). Business strategy is concerned with identifying the strategic scope (i.e. offered products/services and target markets/segments) as well as determining competitive and cooperative strategic initiatives to compete effectively in the market (Andrews, 1971; Hunger and Wheelen, 2010; Linton and Kask, 2017). The following sections analyse the definitions and benefits of competitive and cooperative business strategies.

#### **Competitive Strategy**

Competitive strategy is a long-term action plan set by a business firm to achieve a competitive advantage over its rivals in any industry (Ghezzi, 2013; Porter, 1998). The findings of Yuliansyah et al. (2017) asserted that a successful competitive strategy enhances the performance of business firms through the development of a potent and unique competitive advantage. A competitive advantage is a robust core competence that generates an appropriate return on investment to leverage a firm's performance over competitors (Porter, 1998). Powell (2001) identified three strategic approaches to create competitive advantage and generate a high return on investment:

- Monopoly rents
- Ricardian rents
- Entrepreneurial rents

The monopoly rent school has been dominated by Porter's concepts and framework of competitive forces since the 1980s (Porter, 1980; Porter, 1996; Hernández-Perlines et al., 2016).

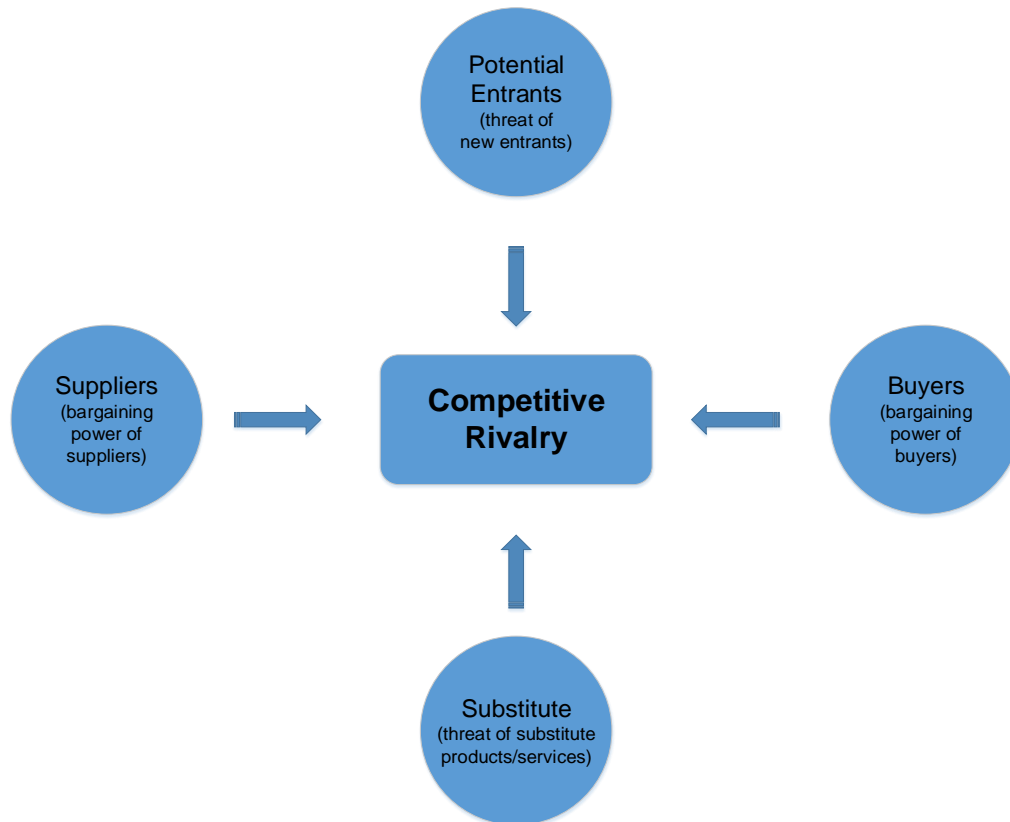


Figure 3. 5: Five forces model (Porter, 1979)

The above model distinguishes five forces in the microenvironment that drive competition and jeopardize a firm's ability to generate profit (Johnson et al., 2008). The collective strength of these five forces has a considerable impact on the profit potential of a business firm (Porter, 1979). Hence, Porter (1979) explained a sustainable competitive advantage to be the outcome of establishing a favourable market position that is secured by rigorous barriers to entry (Allen and Helms, 2006). Market structure analysis should be followed by a deterrent course of action to identify a favourable market position in response to the external forces (Knudsen, 2003).

However, the monopoly rent school and Porter's endeavours were criticised on several grounds.

The advocates of monopoly rent dismissed the conception of internal resources as a source of competitive advantage. Porter (1996) briefly pointed to the importance of having a fit between internal capabilities and external opportunities. Nonetheless, the mechanisms by which a firm can achieve this fit were not explained. Another criticism of the five forces model comes from the notion of assuming a static market structure which contradicts with today's dynamic business environment (Indiatsy et al., 2014). The model static nature was criticised since the impact of individual market forces on business firms changes as government policies, macroeconomic factors, and environmental conditions change (Mohapatra, 2012). Therefore, it is unlikely that the monopoly rent school accurately reflect the competitive posture in turbulent industry environments, such as the construction industry in Ireland (Hill et al., 2007).

The second strategic approach, Ricardian school, theoretically contradicts with the monopoly rent school. Proponents of the Ricardian school argue that developing unique internal capabilities is the ultimate source of sustainable competitive advantage (Knudsen, 2003). High return on investment can be achieved through the exploitation of scarce resources and assets; hence, the external circumstances are irrelevant to acquiring competitive advantage in business practice (Teece et al., 1997). However, Barney (1996) criticised this perspective by arguing that resources are not valuable in a vacuum. The value of internal resources manifests through their interaction with the external environment (Knudsen, 2003). Therefore, dismissing the influence of the external environment on the internal resources stands as a hurdle to sustainable competitive advantage.

The final approach, entrepreneurial rent, contended a mutual concept that the other two schools share, which is the sustainability of competitive advantage (Knudsen, 2003). Ghezzi (2013)

argued that sustainable competitive advantage is elusive due to the prevalent industry environment turbulence, to the extent that change is a constant factor across all industries. Sustaining economic performance then requires continuous innovation to overcome the implications of the regular changes in the business environment (Grant, 1991).

In summary, there are broad differences between the three approaches to competitive advantage. While the monopoly approach posits that the source of competitive advantage lies in market-based factors, the proponents of the Ricardian school argue that a sustainable competitive advantage rests on a firm's unique assets and capabilities. Barney (1996) proposed a balanced view that stresses the importance of exploiting internal capabilities in light of the continuous changes in the business environment. This study advocates a balanced view to achieving a sustainable competitive advantage since a balanced view is aligned with the dynamic capabilities theory (the lens applied to explore the strategic management process in Irish construction contractors).

### **Cooperative Strategy**

Limited access to resources, such as financial, technological, and human resources, is a significant barrier to generating a high return on investment in business firms (Nimwegen et al. 2008; Rangan, 2004). The evolution of cooperative business strategies meant to overcome the shortage of resources and the lack of efficient operational processes in companies. Cooperative initiatives can be undertaken to merge the competencies of different firms to generate unique competitive advantages (Hunger and Wheelen, 2010). Mergers and acquisitions are standard strategic practices among corporations aiming to overcome intense competition or exploit favourable opportunities (Persson and Virum, 2001). Moreover, it was recently observed that strategic alliances were widespread among a large number of multinational corporations operating in the manufacturing sector (Parmigiani and Rivera-



Santos, 2011; Kale and Singh, 2009). Moreover, a considerable number of firms adopting the resource-based view of strategy pursued strategic alliances to consolidate their internal capabilities and enter foreign markets (Haahti et al., 2005; Veiga and Franco, 2015).

It can be concluded that the primary aim of a strategic choice is to acquire a competitive advantage by fostering internal capabilities in response to external challenges (Haahti et al., 2005; Hoffmann, 2007). A balanced view that merges between the strengths of the monopoly and Ricardian schools is highly relevant to the investigated construction industry in Ireland. Likewise, cooperative initiatives, such as strategic alliances, can be a vital strategic approach to overcome resources shortages reported by a large number of Irish construction firms (CIF, 2017).

The previous sections explored strategic planning from a ‘process’ and ‘content’ theoretical viewpoint. The plethora of topics covered demonstrates the complexity and multifaceted nature of strategic planning. Hence, the complex nature of strategic planning has resulted in several models being developed to facilitate the application of strategic planning in business practice.

### 3.5 Strategic Planning Models

The complexity of strategic planning calls for the deployment of process models to organise the process through the clear identification of components and the division of roles (Murphy, 2011). Scott (2007) defined a process model as: ‘A structured method of thinking which enables the component parts of complex process to be identified and related to each other’ (pp. 2/1).

The purpose of a strategic planning model is to act as a guideline for either the analysis of existing strategic planning practices within a company or to aid the development of a strategic plan (Murphy, 2011; Scott, 2007). A process model serves as a logical chart to guide the planning process in practice. Evidence from Irish quantity surveying firms demonstrate limited,

though emerging, need for applying systematic strategic planning across numerous firms (Murphy, 2013). Therefore, process models can facilitate the application of strategic planning across Irish construction firms having limited experience with the aim, components, characteristics, and outcomes of the process.

Numerous models were designed to aid in the formulation of strategic plans in business practice (Nieboer, 2011; Wu and Wu, 1991). These models have been proposed in a variety of contexts, including business firms, non-profit organisations, and for public institutes (Chen et al., 2018). Although every process model in literature was designed to fit the specific needs of a specific sector, there are several commonalities across these models in terms of component parts (Chen et al., 2018).

One of the earliest comprehensive models that gained wide recognition was Steiner's (1979) process model presented below:

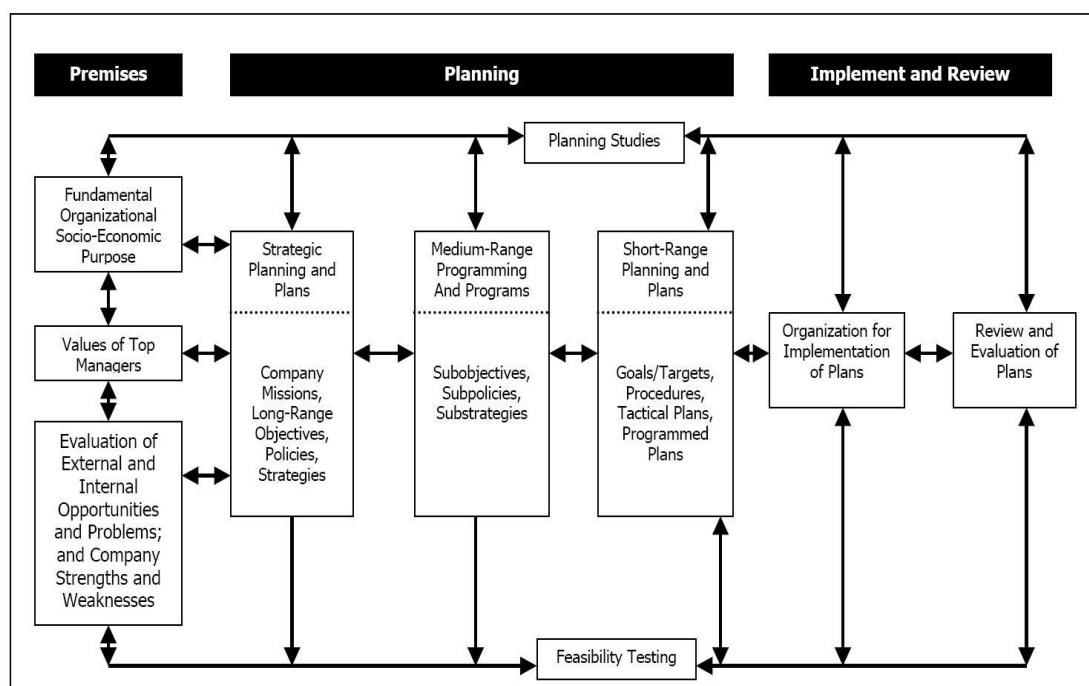


Figure 3. 6: Structure and process of business countrywide planning (Steiner, 1979, pp. 17)

Steiner's model comprised multiple ranges of corporate-level planning: strategic planning, medium-range programs, and short-range tactical plans. Considerable emphasis was placed on the 'values of top managers' during the formulation of strategic plans. Moreover, Steiner's model stressed the evaluation of past strategic plans to allow for continual feedback (Baker and Smith, 1997). This model was generalised enough to be applied across different firms and industries. However, the implementation of this process was not addressed in detail. Limited attention was devoted to revealing the processes, factors, and employees involved in the implementation phase.

Subsequently, several strategic planning models have been developed by multiple scholars such as Chen et al. (2018), Christensen et al. (1982), Kast and Rosenzweig (1985), Kotler (2003) and Ronchetti, (2006). However, these models have not widely deviated from Steiner's version. Most of these models were found to be normative in nature; they encompass what are believed to be the necessary stages of developing a strategic plan (Nieboer, 2011). They often depart from the business mission, the cornerstone of any strategic plan, to be followed by the creation of goals and action plans. Moreover, the presence of a feedback loop is the norm among strategic planning models to pursue continuous improvement. An example of these models is Kotler's (2003) strategic planning process model:

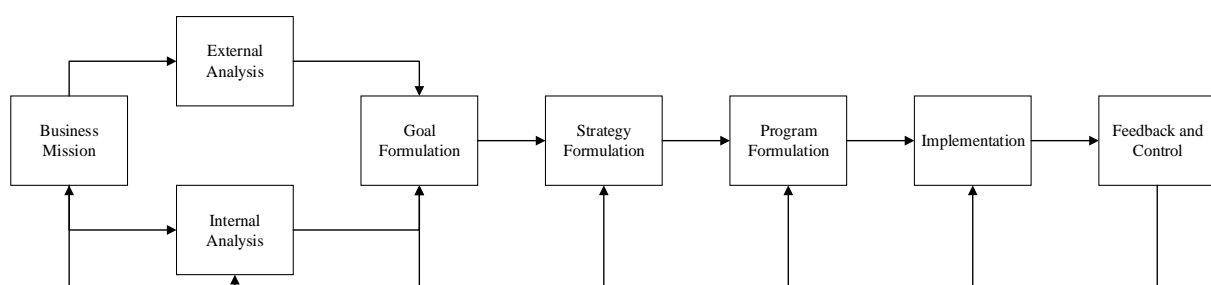


Figure 3. 7: Strategic Planning Process Model (Kotler, 2003, pp. 102)

Analysing these models revealed several flaws that warrant close attention. These process models were criticised on two main grounds:

<b>Critique</b>	<b>Analysis</b>
Role Division	The division of roles in accordance with each stage has received little or no consideration during the development of these models. The roles of senior and department managers can vary throughout the process based on the espoused planning approach (i.e. deliberate or emergent). Little attention has been devoted to the configuration of planning models according to the flow of the strategic initiatives. A unified form of modelling is challenged with the divergent approaches to strategic planning in business practice (i.e. deliberate top-down planning, bottom-up emergent initiatives, informal planning) (Scott, 2007). Therefore, there is a calling demand for a flexible model that can be configured according to the espoused strategic planning approach, whether it is deliberate or emergent planning.
Application of Models in Business Practice	Despite the agreement among scholars on the usefulness of planning models, minimal attention has been devoted to the application of these process models (Baden-Fuller and Morgan, 2010). There remains some scepticism for the use of these models in practice because they ignore the industry-specific factors affecting a firm (Murphy, 2011). The application of these models in practice warrants radical configuration to account for inherent organisational characteristics and industry-specific factors (Makins and Steel, 2006; Nieboer, 2011). As a result, there is a need for developing a process model that consider external and internal factors influencing strategy formulation and implementation in construction firms.

Table 3. 10: Critiques of the strategic planning models

Table 3.10 demonstrated that the application of strategic planning process models in practice remains limited. The intricacy of applying strategic planning models in practice lies in the divergent conceptions of strategic planning among business practitioners (Scott, 2007). These prescriptive models are devoid of the flexibility, which permits the various approaches to strategic planning and different organisational settings. Therefore, the study in hand aims to develop a process model tailored to the specific challenges and characteristics of construction contracting firms in Ireland. These shortcomings will be considered in the process of framework development to ensure its the clarity, flexibility, comprehensiveness, and relevance to construction contracting firms in Ireland.

### 3.6 Summary

The strategic management field has steadily evolved since the 1960s to guide business practice in uncertain environments (Durand et al., 2017; Guerras-Martín et al., 2014). The role of strategy lies in mediating the relationship between the long-term goals of firms and market-based/macroeconomic factors to support business survival and prosperity (Grant, 2002; Johnson et al., 2008).

Strategic planning has been the focus of strategic management researchers for several decades. No single definition exists as to what constitutes strategic planning, yet it is accepted as being an essential business function in contemporary firms. The strategic planning approach may vary considerably, according to firm-specific and market-based factors. There is an ongoing debate on whether strategy should be planned, or it is supposed to emerge in response to environmental changes. Nevertheless, scholars agreed that the uncertain contemporary environment mandates a systematic, yet flexible, approach to strategic planning.

The required flexibility in the approach to strategic planning results in the firm's displaying different characteristics in undertaking the process. The strategic type of a firm, as well as the

espoused approach to strategic planning, largely influence these characteristics. There is no 'best practice' set of planning dimensions that ultimately prove the most advantageous. However, empirical research ascertained the importance of planning formality, comprehensiveness, broad participation, and the use of planning tools for gathering and analysing information.

## Chapter 4. Strategy Implementation

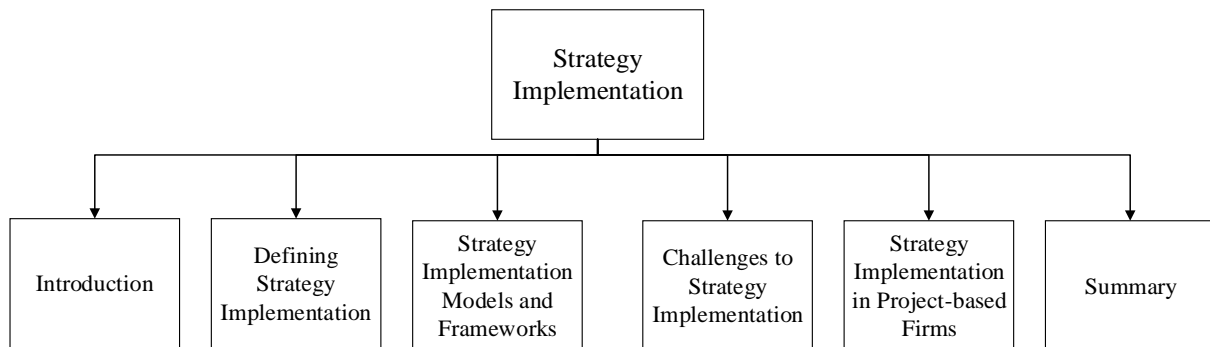


Figure 4. 1: Map of chapter 4

### 4.1 Introduction

The primary aim of developing strategy is acquiring sustainable competitive advantage by fostering internal capabilities in response to market challenges (Haahti et al., 2005; Hoffmann, 2007). Nonetheless, the achievement of competitive advantage is highly dependent on the implementation of strategy (Hrebiniak, 2006; Lippitt, 2007). Strategic planning has received most of the academic attention in the strategic management literature (Gottschalk, 2008). Nevertheless, it remains one of an array of processes that assemble the strategic management process (i.e. internal and external analysis, strategy implementation, and strategic control) (Hunger and Wheelen, 2010). While strategic planning decides where a firm is today and where it should be tomorrow, the implementation process is responsible for accomplishing this strategic vision (Lippitt, 2007).

Strategy implementation in a construction context requires considerable emphasis from scholars due to the unique, project-based, nature of construction firms as well as the inherent state of market turbulence in the industry. This chapter reviews the literature pertaining to the origins, definitions, and components of the strategy implementation process. Moreover, the

challenges facing the implementation process in business firms are highlighted. Finally, the intricacy of executing strategy in project-based firms is investigated.

#### 4.2 Defining Strategy Implementation

Strategy implementation refers to the accomplishment of the strategic objectives of a firm (Eccles, 1994). Strategy scholars started to shed light on strategy implementation since the late 70s (Galbraith and Nathason, 1978; Hobbs and Heany, 1977). Nevertheless, the attention paid to strategic planning far exceeds that paid to the implementation process (Gębczyńska, 2016; Gotschalk, 2008). A cursory review of strategic management literature reveals the modest academic emphasis placed on implementation (Hrebiniak, 2006). Therefore, strategy implementation warrants close attention, from scholars and practitioners, alike due to its direct contribution to the success or failure of strategic management in business practice (Raps, 2005).



The following table encompasses multiple definitions of strategy implementation:

<b>Author</b>	<b>Definition of Strategy</b>	<b>Publication</b>
Andrews et al. (1969)	‘The implementation of strategy is comprised of a series of sub-activities which are primarily administrative.’ pp. 98	Business Policy Text and Cases
Ansoff and McDonnell (1990)	‘Implementation is the process of causing the firm to behave in accordance with the purposes, guidelines and strategies.’ pp. 308	Implanting Strategic Management
Johnson and Scholes (1999)	‘Strategy implementation is concerned with the translation of strategy into organisational action through organisational structure and design, resource planning and the management of strategic change.’	Exploring Corporate Strategy
Hitt et al. (2007)	‘Strategy Implementation refers to designing appropriate organizational structures and control systems to put the organization’s chosen strategy into action.’ pp. 5	Strategic Management: An Integrated Approach
Wheelen and Hunger (2012)	‘Strategy Implementation is the sum total of the activities and choices required for the execution of a strategic plan.’ pp. 320	Strategic Management and Business Policy: Toward Global Sustainability

Table 4. 1: Definitions of strategy implementation

The definitions in table 4.1 revealed that the understanding of strategy implementation has steadily evolved to encompass new concepts and processes. Andrews et al. (1969) interpreted strategy implementation as a series of administrative activities; it is limited to the allocation of resources and adjustment of organisational structure (Pournasir, 2013). Hitt et al. (2007) expanded the definition of Andrews et al. (1969) to include control systems to monitor the strategy implementation process. However, Andrews et al. (1969) and Hitt et al. (2007) overlooked the importance of aligning organisational culture with strategy. These definitions fell short of explaining the interface between the behaviours of individuals and the

implementation process. There is a significant relationship between organisational culture and the success of strategy implementation (Ahmadi et al., 2012). Therefore, business firms need to create an internal environment characterised with shared values, beliefs, expectations, and norms to inspire commitment towards achieving overall strategic goals (Lund, 2003).

Ansoff and McDonnell (1990) emphasised the considerable importance of aligning the behaviours of employees with the strategic goals of an organisation. Resistance to change was the focal point of analysis since it regularly impeded any strategic change. Accordingly, strategy implementation was defined as the establishment of collective organisational behaviour which adheres to the content of a strategic plan. However, Ansoff and McDonnell (1990) did not mention the importance of developing organisational structure, management system, and internal processes that are aligned with the strategic objectives of a business entity. Nevertheless, strategy implementation demands close attention to administrative factors, such as the development of action plans, the evaluation of budgetary requirements, analysing organisational constraints, internal coordination, in addition to risk management.

The definition posited by Johnson and Scholes (1999) is remarkably comprehensive since it captured both the administrative and behavioural facets of strategy implementation. Johnson and Scholes (1999) posited that the translation of strategy into a course of action mandates the configuration of the structure, alignment of the management system with the strategic goals, resource planning, and effective management of strategic change. Therefore, effective implementation of strategy was defined as the extent of integration between a strategic plan, organisational structure, and resource management with the day-to-day activities (Johnson and Scholes, 1999).

It can be summarised that strategy implementation is a set of managerial interventions that align the goals of a strategic plan with the organisational course of action (Hitt et al., 2007;

Radomska, 2014; Wheelen and Hunger, 2012). The definition of Johnson and Scholes (1999) is used as a reference point for this study due since it captures both the administrative and behaviour aspects of strategy implementation. The following section aims to discuss and critically analyse models and framework developed to guide firms through the process of implementing strategy.

#### 4.3 Strategy Implementation Models and Frameworks

A framework acts as a guide to identifying the elements of the strategy implementation process, their sequence and interrelation, and their relative importance (Kazmi, 2008). Hrebiniak (2005) posited that the implementation process is too complex to approach without a supporting roadmap. Nonetheless, multiple scholars pointed to the lack of comprehensive frameworks for implementing strategy (Aaltonen and Ikävalko, 2002; Noble, 1999; Okumus, 2001). Likewise, most of available the frameworks in literature are generic in nature; they are not tailored to suit specific industries or a group of firms. Therefore, there is a notable paucity of strategy implementation frameworks customised to the specific needs and characteristics of specific industries, such as the construction industry.

An early conceptual framework of strategy implementation developed by McKinsey (as noted in Waterman et al., 1980) confirmed seven factors for executing strategy: strategy and purpose, structure, systems and processes, staff, style, skills, and shared values. McKinsey's framework was later extended by Higgins (2005), who identified strategic performance as the eighth element and fundamental aim of implementing strategy. Moreover, skills were replaced by resources in the extended framework for the aim of comprehensiveness.

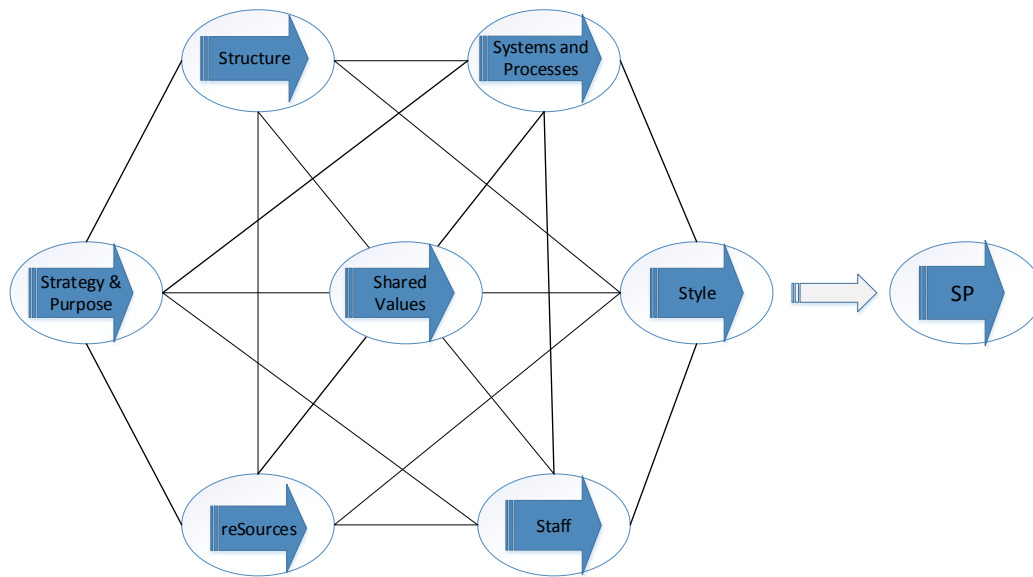


Figure 4. 2: The 8S strategy implementation framework (Higgins, 2005)

The strategy implementation frameworks developed after the 7S framework by Stonich (1982), Hrebiniak and Joyce (1984), Reed and Buckley (1988), Alexander (1991), Miller and Dess (1996) and Thompson and Strickland (2003) have not largely deviated from the 7S framework. These scholarly contributions posited that the implementation process is built upon a set of factors. The differences between these frameworks lie in the selection of factors and the relative importance of individual factors (Kazmi, 2008). Nevertheless, they all agreed that strategy is implemented by laying managerial emphasis on a set of well-defined factors.

Higgins (2005) asserted that the effectiveness of strategy implementation stems from the interaction between the proposed factors. This assertion is shared across all frameworks of strategy implementation. Nevertheless, these frameworks were criticised for providing individual factors with no further explanation regarding the interrelationships among them (Kazmi, 2008). None of the scholars provided an in-depth analysis of the interactions between these factors or how these interactions influence the outcome of the strategy implementation

process (Okumus, 2001). Moreover, the abovementioned frameworks placed little emphasis on the impact of external variables (i.e. macroeconomic and market-based factors) on the implementation process (Kazmi, 2008). Therefore, several scholars such as Kazmi (2008) posited the need to explore the interactions among implementation factors, as well as the impact of micro and macro environment on the implementation process.

More recent studies sought to clarify the interrelationships between the factors of strategy implementation (Aaltonen and Ikavalko, 2002; Obeidat et al., 2017; Okumus, 2003). Multiple conceptual and empirical frameworks emerged to explain the casual or temporal relationships between the elements of strategy implementation (Davis, 2012; Friis et al., 2016; Kaplan and Norton, 2008). These frameworks diverged from the 7S and 8S frameworks to emphasise the roles of the external environment, internal collaboration, and strategy control. However, none of these frameworks investigated the impact of exterior factors facing business firms, such as construction firms.

In summary, a sophisticated strategy implementation framework should identify relevant implementation factors, clarify the interrelationships among them, and explain the impact of industry-based and macroeconomic factors on the implementation process (Kazmi, 2008). The dearth of strategy implementation frameworks tailored to the construction industry calls for addressing this gap in the body of knowledge. The following sections examine the factors of strategy implementation illustrated in the seminal 8S framework. These factors are to form the foundational basis of the strategy formulation and implementation framework to be developed for construction contracting firms in Ireland.

#### 4.3.1 Strategy and Purpose

The 8S framework developed by Higgins (2005) listed the principal factors that form the strategy implementation process. He proposed a sequential process to transform a strategic plan

into a course of action. The implementation process begins with identifying the strategic goals of a firm. Effective strategy implementation is predicated on the assumption that functional areas within a firm understand the overall strategic priorities (Rapert et al., 2002).

It is often assumed that a firm's strategy is clearly mandated, accurately understood, and immediately accepted by organisational members (Mintzberg and Waters, 1985). However, strategic decisions emerging from the corporate level are always interpreted at lower levels in a diverse set of ways (Rapert et al., 2002). Therefore, successful implementation requires consistent communication of the strategic goals from top management to employees at functional-levels. Organisational structure owns an imperative role in communicating strategic goals and directing activities. The next section discusses the importance of organisational structure to executing strategy.

#### 4.3.2 Organisational Structure

The second important factor in the strategy implementation process is the organisational structure since it outlines how certain activities (e.g. rules, roles, and responsibilities) are directed to achieve the goals of a firm (Foster and Washington, 2009). The structure is responsible for determining how tasks are allocated, information is communicated, and supervision is conducted to achieve a common aim (Pugh, 1990). Moreover, it decides how work activities are transferred between individuals, teams, and departments (Foster and Washington, 2009). The organisational structure is a principal factor in the framework to be developed to guide Irish construction contracting firms through the formulation and implementation of strategy.

The following table summarises the main types of organisational structure:

<b>Organisational Structure</b>	<b>Definition</b>
Hierarchical	This model is the most popular organisational chart type. Employees are grouped according to the function they provide, the geographical location where they are based, or the product they offer. Every employee has one direct supervisor.
Matrix	The reporting relationships are set up as a grid, or matrix, rather than in the traditional hierarchy. It is a type of organizational management in which people with similar skills are pooled for work assignments, resulting in more than one manager for every employee.
Horizontal/Flat	This organizational chart is mostly adopted by small companies and start-ups in their early stage. This model eliminates many levels of middle managers to enable employees to make decisions quickly and independently.
Network	The network structure is a newer type of organisational structure which is less hierarchical, more decentralized, and more flexible than other structures. Managers who coordinate and control relationships are both internal and external to the firm. Proponents argue that the network structure is more agile than other structures. It has fewer tiers, a wider span of control, and a bottom-up flow of decision making and ideas.

	However, it is quite intricate to implement and can lead to more complex relations in an organisation.
Divisional	Each internal function has its own division which corresponds to either products or geographies. Each division contains the necessary resources and functions needed to support the product line and geography.

Table 4. 2: Types of organisational structure (Pleshko, 2007)

Higgins (2005) acknowledged the importance of organisational structure in implementing strategy. He focused on the functions of the organisational structure (e.g. power delegation and decision-making authority). However, he devoted limited attention to designing the organisational structure according to the strategic orientation of a business firm.

Classical strategy scholars, such as Chandler (1962) and Drucker (1973) (see section 3.1.2.2), posited that the design of the structure must follow the strategy to generate operational efficiency. The organisational structure must be aligned with the firm's strategy to provide the coordination and control need to implement strategy effectively (Drucker, 1973). Marx (2016) tested the above concept to find a robust correlation between structural design and Porter's competitive strategies (see section 3.4.2). He observed that the implementation of a differentiation strategy mandated a decentralised divisional structure to promote coordination and flexibility. On the other hand, organisations that adopted a low-cost strategy were inclined towards a, hierarchical, centralised structure to maintain effective control over their operational processes. These findings demonstrate the importance of aligning the design of the organisational structure, as well as the model of decision-making with business strategy to pursue effective strategy implementation.



Organisational decision-making is defined as a random set of interactions between decision-makers with business opportunities to carry a firm towards the future (Waterman et al., 1980). Classical strategists assumed that aligning structure with strategy will allow managers to undertake rational decisions by identifying and comparing options to determine which one produces the optimal outcomes (Chandler, 1962). However, decision-making though is a complex and multidimensional process that cannot be handled only through the organisational structure.

*In the face of complexity and multiple competing demands, organizations simply can't handle decision-making in a totally rational way. Not surprisingly, then, a single blunt instrument - like structure - is unlikely to prove the master tool that can change organizations with best effect. (Waterman et al., 1980)*

Raising the efficiency of organisational decision-making mandates goal unity to ensure consistency between daily decisions and overriding strategic objectives. The internal value-system (e.g. organisational culture, personal interests and skills) has to be aligned with the strategic objectives of a firm for successful strategy implementation (Marx, 2015; Pascale and Athos, 1981). The role of leadership is imperative in uniting the interests of staff towards a set of common goals.

#### 4.3.3 Leadership, Staff, and Shared Values

Leadership is needed to transform an organisational vision into reality (Bennis, 1997). It is defined as the ability to create a shared vision and values by motivating and empowering followers to pursue common goals (Marx, 2015). Kotter (1990) argued that there are significant differences between leadership and management. While managers are more concerned with problem-solving, allocation of resources, and the establishment of rules, leaders focus on developing and motivating individuals to achieve common goals (Collins, 2001). In essence,

*‘Managers are people who do things right and leaders are people who do the right thing’*

(Bennis and Nanus, 1985, pp. 221).

Goleman (2000) summarised the main attributes of different leadership styles:

	<b>Coercive</b>	<b>Authoritative</b>	<b>Affiliative</b>	<b>Democratic</b>	<b>Pacesetting</b>	<b>Coaching</b>
<b>The leader’s modus operandi</b>	Demands immediate compliance	Mobilizes people toward a vision	Creates harmony and builds emotional bonds	Forges consensus through participation	Sets high standards for performance	Develops people for the future
<b>The style in a phrase</b>	“Do what I tell you.”	“Come with me.”	“People come first.”	“What do you think?”	“Do as I do, now.”	“Try this.”
<b>Underlying emotional intelligence competencies</b>	Drive to achieve, initiative, self-control	Self-confidence, empathy, change catalyst	Empathy, building relationships, communication	Collaboration, team leadership, communication	Conscientiousness, drive to achieve, initiative	Developing others, empathy, self-awareness
<b>When the style works best</b>	In a crisis, to kick start a turnaround, or with	When changes require a new vision, or when a clear direction is needed	To heal rifts in a team or to motivate people during stressful circumstances	To build buy-in or consensus, or to get input from valuable employees	To get quick results from a highly motivated and	To help an employee improve performance or

	problem employees				competent team	develop long-term strengths
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Table 4. 3: Types of leadership styles (Goleman, 2000)

Multiple scholars, such as Andrews (1971), Ansoff (1965), Drucker (1973), and Montgomery (2012) asserted that leadership has an indispensable role in implementing strategy. Leaders are responsible for influencing and unifying the values of their subordinates to achieve satisfactory strategic performance. Leadership and strategy implementation are inseparable because the implementation is a people-oriented process that involves communication, motivation, as well as empowering and rewarding individuals (Thompson et al., 2014).

Porter (1980) suggested that the implementation of competitive strategies demands highly skilled leaders. Marx (2015) tested this proposition to find that implementing differentiation strategy (see section 3.4.2) mandated specific leadership traits (e.g. risk-taking), leadership functions (e.g. ensuring budgets are met), leadership skills (e.g. communication), and leadership styles (e.g. autocratic). It can be drawn from these observations that strategy implementation requires consistent alignment between the skills, traits, and style of leaders with a strategic orientation. However, Marx (2015) reported that this alignment is difficult to achieve in practice.

There are several challenges to aligning the leadership style within a business firm with strategy implementation (Lee and Puranam, 2016). The intangible nature of leadership complicates its alignment with strategy; changing the behaviour and leadership style of corporate leaders to implement strategy effectively is far more complicated than aligning organisational structure or business processes with the organisation's strategy (Marx, 2015). Adapting leadership traits

and styles to strategy may prove difficult since it requires changing underlying attitudes, value, and beliefs that are particularly resistant to change.

Another serious challenge to aligning leadership with strategy is the academic focus on top managers only as a unit of analysis within leadership studies (Kriger and Zhovtobryukh, 2013). However, organisations usually have several leaders at all levels of the hierarchy (Kriger and Zhovtobryukh, 2013). Therefore, there have been several calls to reconceptualise the concept of leadership from a single-actor task to a multi-actor process (Yukl, 1989; Finkelstein et al., 2009). Business firms, such as construction contractors, need to identify leaders at all hierarchical levels to align their leadership skills and traits with the strategy implementation process.

In summary, leadership is crucially needed to transform a strategic plan into reality. The alignment of leadership traits, functions, and style with strategic orientation is a prerequisite to the commitment of staff to strategy implementation. Firms have numerous leaders, at all organisational levels, who influence the implementation process. Hence, corporate leaders aim to build a sense of ownership to the implementation process across all hierarchical levels. The next section examines the role of possessed resources the strategy implementation.

#### 4.3.4 Resources

Radomska (2014) asserted the distinctive role of resources in the strategy implementation process. The implementation of strategy requires different types of resources: staff, financial, physical, technological, and administrative (Higgins, 2005; Obeidat et al., 2017). A primary reason firms fail to achieve their strategic goals that managing directors do not invest enough time and resources in the implementation process (Bolboli and Reiche, 2013).

The vital role of the resources in the strategy implementation process was supported by the findings of Kash et al. (2014) and Obeidat et al. (2017). They concluded that the success of

strategy implementation in the healthcare sector heavily relied on possessed resources. Enterprises that developed unique capabilities out of their available resources outperformed their competitors (Kash et al., 2014). The role of resources in strategy implementation across construction contracting firms is imperative due to the labour and capital intensity of the operational construction process (Teo and Runeson, 2012). Therefore, adequate, exploited, and integrated resources are mandatory to pursue the success of strategy implementation in construction firms.

The exploitation and integration of resources are necessary to develop distinct capabilities that distinguish a business firm from competitors. Nonetheless, resources integration is mainly conducted through internal systems and processes. Hence, the next section discusses the role of systems and processes in developing internal capabilities and implementing strategy.

#### 4.3.5 Systems and Processes

A business process is a set of tasks that are used repeatedly to create a product, deliver a service, or provide value to a customer (Gębczyńska, 2016). A process is the primary component of a firm that is directly involved in fulfilling the requirements of clients and stakeholders. Efficient processes (i.e. functioning in the best possible manner with the least waste of time and effort) have become an organisational necessity in response to the rapid market changes and accelerated lifecycle of products (Gębczyńska, 2016).

Okumus (2003) demonstrated the importance of operational processes to the implementation of strategy. The success of strategy implementation depends to a considerable extent on the effectiveness of the internal processes at the lower levels of the organisational hierarchy (Engberg, 2015). Processes influence strategy executing since they determine the value of business outcomes in terms of products and services (Simon et al., 2014).

Accordingly, the successful implementation of strategy predicates a shift from the classical functional approach of organisation management towards the process approach.

Gębczyńska (2016) elaborated on the radical differences between the functional approach and the process approach. The former concentrates on the achievement of goals assigned to the individual departments with no regard to the links between these goals, while the latter stresses on coordination between the different activities to fulfil the requirements of clients. Moreover, a critical difference between both approaches lies in the assessment of operational performance. According to the functional approach, managers are responsible for evaluating operational performance. In contrast, a process-oriented organisation relies on the clients to assess operational performance.

The essence of strategy implementation is to align the individual departments towards achieving a common goal. The process approach departs from the fragmented management of functions towards coordinating internal departments to respond to the changing needs of clients (McCormack and Johnson, 2001). An important commonality between strategy implementation and process-oriented management lies in their mutual emphasis on internal coordination between different processes/departments to achieve a common aim (Gębczyńska, 2016). Therefore, a process-oriented approach to strategy implementation is highly relevant to construction firms due to the complexity of operational construction process that requires consistent coordination between department. Likewise, the evaluation of operational performance from a clients' viewpoint is necessary for an industry that places considerable emphasis on repeat business.

The abovementioned discussion revealed the complexity and multifaceted nature of the strategy implementation process. Implementation process consists of numerous components that should be aligned with the overriding strategic goals of a business firm. However, this

alignment is confronted with many challenges which regularly impede the strategy implementation process (Gębczyńska, 2016). Therefore, the rates of strategy implementation success in business practice remain very low (Pretorius, 2016; Raps, 2005). Failure of strategy implementation in construction firms is a critical risk that may obstruct their endeavours to survive the prevalent turbulent conditions. Therefore, the following section discusses the primary challenges to strategy implementation in contemporary firms.

#### 4.4 Challenges to Strategy Implementation

Strategic plans that are not implemented add no value to business firms (Pechlaner and Sauerwein, 2002). On the other side, successful strategy implementation can be a source of competitive advantage in the business environment. A firm can outperform its competitors by implementing its strategy better, faster, and at a lower cost than rivals (Eccles, 1994). Lee and Puranam (2016) posited that the benefits of successful implementation go beyond the exploitation of strategic plans. Effective implementation can also lead to the discovery of strategic alternatives by continuously learning from implementation process feedback (Hrebiniak, 2006). Therefore, the success of the strategy implementation process is vital for the continued success of business firms operating in uncertain conditions.

Despite the importance of strategy implementation, it rarely achieves momentum in business practice (Pretorius, 2016). This issue is proven by the low success rate of implementing intended strategies, which remains close to an unsatisfactory range of 10 to 30 per cent (Raps, 2005). The reason for strategy implementation failure in practice remains an enigma (Kazmi, 2008; Okumus, 2001); whether it lies in the strategic planning phase or in the complexity of transforming a strategic plan into an action plan (Charan and Colvin, 1999; Gębczyńska, 2016; Lee and Puranam, 2015).

Friis et al. (2016) argued that strategic plans which encompass irrelevant content, vague objectives, or involve few stakeholders are rarely implemented (Dandira, 2012). Moreover, several scholars, such as Gębczyńska (2016) and Raps (2005) asserted that even the best strategies could not be implemented without a commitment from all hierarchical levels to the goals of a strategic plan. Hence, the primary challenge to strategy implementation in practice is creating a shared understanding of a strategy across all organisational levels. The creation of a shared understanding to the content and benefits of a strategic plan requires integration between strategy formulation at a corporate level and strategy implementation at a functional level (Chakravarthy et al., 2003).

*“Organisational integration is the process of achieving unity of effort among the various subsystems in the accomplishment of the organization's task”* (Lawrence and Lorsch, 1967:4).

Although this integration is necessary for strategy implementation success, the disconnection between strategic plans and functional processes is a phenomenon in contemporary firms (Kazmi, 2008; Ocasio and Joseph, 2008; Pretorius, 2016). Work pressures often deviate the focus of operational managers from pursuing strategic objectives towards addressing short-term concerns (Aaltonen and Ikävalko, 2002; Kaplan and Norton, 2001). *‘Daily routines and the lack of time were mentioned as preventing the organizational members from thinking and acting strategically’* (Aaltonen and Ikävalko, 2002, pp. 417).

Fenton and Langley (2011) blamed the regular failure of strategy implementation on ‘organisational hypocrisy’. This hypocrisy refers to the gap between an announced strategy and the actions of organisational members. The daily decisions and actions of managers and employees often reflect their personal beliefs and interests rather than the strategic objectives of the firm (Pretorius, 2016).



The disconnection between a strategic plan and daily decisions/actions can be reasoned by the lack of awareness of employees with the strategic objectives of their enterprise. Multiple studies found that a modest percentage of the workforce could realise the strategic orientation of their companies (Gębczyńska, 2016; Kaplan and Norton, 2001). Surprisingly, Aaltonen and Ikävalko (2002) found that communication was not an optimal solution to this dichotomy. Communication may ensure that employees can recognise the content of a strategic plan in generic terms (Aaltonen and Ikävalko, 2002); however, the problem arose from transforming the content of a strategic plan into daily decisions and actions.

In conclusion, the limited alignment between corporate planning and day-to-day operations is the primary reason for strategy implementation failure (Aaltonen and Ikävalko, 2002; Gębczyńska, 2016; Kaplan and Norton, 2001). Lee and Puranam (2015) demonstrated that the perfectionism of strategy implementation lies in the extent to which the actions of a firm correspond to its strategic plan. *‘Efficiency of the strategy implementation depends on the ability to decompose it into local managerial levels. Strategy must inherently match individual levels of management’*. (Gębczyńska, 2016, pp. 1082)

The alignment between a strategic plan and daily actions requires achieving congruence between strategy, structure, processes and people (Galbraith and Nathanson, 1978). This congruence is an equilibrium-like state that is never achieved due to the complexity of creating a collective organisational behaviour towards a common goal; however, this state should always be pursued to achieve successful implementation of strategy.

Thiry and Deguire (2007) found that the gap between strategy formulation and implementation is more pronounced in project-based firms, such as construction firms, due to the inherent

characteristics. Hence, the following section aims to review the literature on strategy implementation in project-based firms.

#### 4.5 Strategy Implementation in Project-based Firms

Project-based firms refer to an organisational form that involves the creation of temporary systems to deliver unique ventures (DeFillippi and Arthur, 1998; Thiry and Deguire, 2007). In project-based firms, a project is the primary mechanism for integrating business functions to serve clients (Hobday, 2000). It has been established that the performance of individual projects influences the strategic performance of a firm (DeFillippi and Arthur, 1998; Thiry and Deguire, 2007). Therefore, the successful management of projects, as well as consistent alignment between these projects, ultimately determine the success or failure of strategy implementation (Pedersen and Ritter, 2018).

The integration between individual projects is necessary to maintain internal coordination, efficient/effective resources utilisation, as well as the transfer of knowledge, tools, and techniques (Lycett et al., 2004). Nevertheless, the unique characteristics of project-based firms, listed below, complicate the integrating of individual projects to implement strategy (Mintzberg and McHugh, 1985; Thiry and Deguire, 2007):

1. The operational processes of project-based firms are complicated since every output tends to be unique.
2. The production of complex and unique outputs mandates the engagement of multidisciplinary and temporary teams, leading to complicated knowledge sharing.
3. The unpredictable nature of work restricts the formalisation of the operational process, as well as the possibility of evaluating project delivery processes.
4. Finally, project-based companies tend to be highly decentralised. Thus, top management practices limited control over projects delivery.

Multiple authors reported that the application of strategic management in project-based firms rarely goes beyond the strategic planning phase (Johnson et al., 2008; Morris and Jamieson, 2004; Wit and Meyer, 2004). Project-based firms often struggle to align the processes of individual projects with their overriding strategic objectives (Thiry and Deguire, 2007). Projects are often seen as single ventures; and therefore, they rarely reflect the strategic orientation of the firm (Grabher, 2004). Therefore, the inherent nature of project-based firms stands as a hurdle to integrating strategic planning with strategy implementation.

Bridging the gap between strategy formulation and implementation requires continuous alignment between projects by managing interrelationships between individual projects (Lowstedt et al., 2018). Executives were considered responsible for the regular assessment and comparison of the goals and performance of individual projects versus the firm's strategic goals (Benko and McFarlan, 2003). Therefore, it is expected that senior managers have a principal role in the strategy implementation process across construction firms under investigation.

Pedersen and Ritter (2018) argued that managing strategy implementation through a project-based lens requires regularly asking two crucial questions:

1. Are the projects complementary, such that together they form a coherent strategic path?
2. Do the projects compete for the same resources, such that they conflict with each other and prevent concurrent execution?

Answers to these questions can explain the different types of interfaces between projects within a firm. Pedersen and Ritter (2018) posited that the relationships between projects could be categorised into four scenarios with serious strategic implications. A comprehensive understanding of each scenario is needed to manage the strategy implementation process successfully. Table 4.4 display these four scenarios:

Scenario	Explanation	Strategic Implication
Project Symbiosis	Projects fit together, and they do not compete for the same resources.	These projects reflect a consistent and effective strategic plan. Moreover, they enable smooth strategy implementation.
Project Trap	Projects fit together, but they compete for the same resources.	All projects cannot be implemented concurrently. The overall strategic direction stays the same, but the strategic objectives are achieved later than expected.
Project Maze	Projects do not fit together, but they do not compete for the same resources.	These projects will not reflect the planned strategy. As a result, the realised strategy is expected to largely deviate from the intended one. The success of the emerging strategy requires unity between these projects by fostering interaction among them. Otherwise, successful non-fitting projects can be separated into distinct businesses.

Project War	Projects do not fit together, and they compete for the same resources.	These projects reflect poor strategic planning on a corporate level. Significant deviation is expected to occur between the intended strategy and the realised strategy. Strategic success requires discontinuing projects that interfere with the realisation of the primary strategic objectives.
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Table 4. 4: Project-to-project dependency scenarios (Pedersen and Ritter, 2018)

The success of strategy implementation depends on how well top management deals with conflicts between projects (Pedersen and Ritter, 2018). Nevertheless, little is known about how project-based firms manage these conflicts to align projects towards a strategic aim (Löwstedt et al., 2018; Pedersen and Ritter, 2018). Therefore, further research inquisition is required to explore the extent of integration between strategic planning and individual projects.

The study in hand aims to explore the extent of integration between strategy formulation and implementation, through projects, in construction contracting project-based firms in Ireland. The study aim is to be achieved by investigating the approach to strategic planning, characteristics of the planning process, strategic type, factors of the strategy implementation process, and barriers to aligning the delivery of projects with the strategic objectives.

#### 4.6 Summary

Despite the importance of strategic management for business survival, the implementation of strategic plans rarely achieves momentum in business practice (Pretorius, 2016). The primary reason for strategic management failure lies in the segregation between strategic planning and strategy implementation processes (Kazmi, 2008; Ocasio and Joseph, 2008; Pretorius, 2016). Strategic plans that encompass irrelevant content, vague objectives, or the involvement of a few stakeholders are rarely implemented (Dandira, 2012; Friis et al., 2016). On the other hand,

the disconnection between strategic plans and functional processes is a phenomenon in contemporary firms (Kazmi, 2008; Ocasio and Joseph, 2008). Daily decisions and actions rarely reflect the strategic objectives of business firms (Gębczyńska, 2016; Lee and Puranam, 2015).

The gap between strategic planning and strategy implementation is widely pronounced in project-based firms due to their inherent characteristics; however, it remains under-investigated in project-based construction firms (Thiry and Deguire, 2007). Multiple scholars found that strategic management in project-based companies rarely goes beyond the planning stage (Johnson et al., 2008; Morris and Jamieson, 2004; Wit and Meyer, 2004). Project-based companies often struggle to align the processes of individual projects with the overriding strategic objectives (Thiry and Deguire, 2007). Therefore, the extent of integration between strategic planning and strategy implementation in project-based, construction contracting firms, calls for a further inquisition.

## Chapter 5. Strategic Management in the Construction Industry

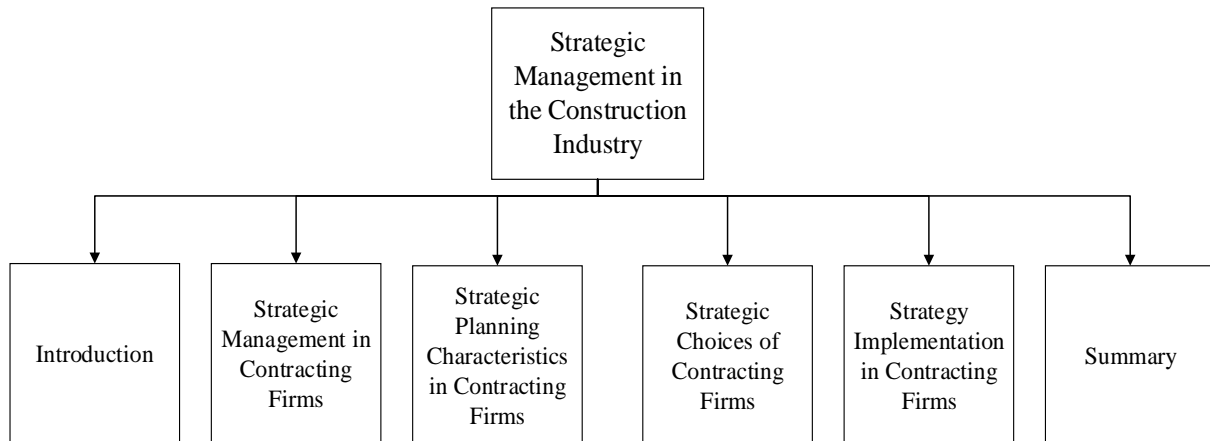


Figure 5. 1: Map of chapter 5

### 5.1 Introduction

Contracting firms are susceptible to a highly competitive business environment for several reasons (Wong et al., 2010). First, the industry regularly experiences new domestic and foreign entrants as well as planned adjustments by contractors to improve their competitive positions (Junnonen, 1998; Price, 2003). Moreover, the immense competitive rivalry between contractors is compounded by multiple industry-specific factors (e.g. industry fragmentation, low barriers to entry, substantial exit cost, and unique characteristics of the construction product) (Cheah and Chew, 2005; Oyewobi et al., 2015) (see section 2.4). Therefore, the capability of contracting firms to survive in this intense business environment is always under threat.

Construction management researchers and practitioners have often been entrenched in the project management level to improve the operational performance of contractors in pursuit of business survival (Cheah and Chew, 2005; Chinowsky and Meredith, 2000). Researchers and practitioners focus on improving operational performance to minimise operational costs and maximise the margin of profit (Cheah and Chew, 2005). However, it is unlikely that improving operational performance alone can maintain the survival of contracting firms. Cheah and Chew

(2005) found that mutual dependence amongst contractors (i.e. the replication of functional practices between firms) restricts the potential benefits of operational excellence. They concluded that functional development alone is not enough to surpass competitors and maintain business survival. Likewise, the exclusive focus on operational excellences leaves construction firms vulnerable to economic slowdowns.

The global economic recession in 2007-2008 revealed the fragility of contracting firms to economic downturns (Tansey et al., 2014; Wong et al., 2010). Around 23 per cent of Irish construction companies did not survive due to the severe reduction in the supply of construction projects (DKM, 2016). This problem was seen in Germany and South Africa during similar economic meltdowns (Cheah and Chew, 2005; Oyewobi et al., 2015). The liquidation of numerous large contracting firms exemplified that operationally competent firms can still be vulnerable to economic turbulence (Cheah and Chew, 2005). Therefore, contractors need to craft and implement a coherent strategy that considers the contemporary state of market flux (Dikmen and Birgonul, 2003; Oyewobi et al., 2015; Phua, 2006).

Several studies found that firms which are committed to strategic management were more likely to survive in declining economies (Schleifer, 2015). Navarro (2005) and Schleifer (2015) posited that the ability of senior managers to understand the economic cycle and its impact on their industry leads to a crucial pre-emptive course of action. For instance, Schleifer (2015) found that US construction firms were able to maintain their profitability amid economic slowdowns by anticipating changes in the business cycle and cutting overheads sooner. Hence, it can be deduced that strategic management is necessary for contracting firms aiming to survive in the highly competitive and cyclical construction industry (Arditi et al., 2000; Isik et al., 2010; Handayani, 2017; Wong et al., 2010).



Despite the importance of strategic management for construction firms, the academic focus on strategic management in construction remains limited (Cakmak and Tas, 2012; Murphy, 2011). In Ireland, a limited number of studies sought to explore the application of strategic management in domestic construction firms (Murphy, 2011; Murphy, 2013; Tansey et al., 2014; Tansey and Spillane, 2016). These studies were either focused on quantity surveying firms (Murphy, 2011; Murphy, 2013) or devoted describing the strategic response of Irish contractors to the last economic recession (Tansey et al., 2014; Tansey and Spillane, 2016). However, none of the previous studies sought to explore the characteristics of strategic planning, factors of the strategy implementation process, or enablers/barriers to both processes in contracting firms. Therefore, the study in hand aims to address these gaps in the body of knowledge since the characteristics and components of the strategy formulation/implementation processes have a direct influence on the strategic performance of business firms.

## 5.2 Strategic Management in Contracting Firms

Numerous scholars ascertained the relevance of different strategic management theories (e.g. resource-based view, strategic positioning) to construction firms aiming to develop a competitive advantage in the market (Chew et al., 2008; Dansoh, 2005; Junnonen, 1998; Oyewobi et al., 2015; Price, 2003). The resource-based view was found to be the dominant theory amongst contracting firms (Phua, 2006; Chew et al. 2008; Li and Ling; 2012). Resources were considered a primary source of core competence due to the labour and capital intensity of the operational construction process (Teo and Runeson, 2012). Hence, contractors are likely to be engrossed in the acquisition of exceptional and scarce resources to leverage their operational efficiency and surpass competitors (Chew et al. 2008).

Chew et al. (2008) and Schroeder (1995) posited that the scope of strategic management in contracting firms should be limited to aligning a firm's resources with market demand. This

alignment requires the regular configuration of possessed resources in response to market and construction output changes (Green et al., 2008; Junnonen, 1998). Therefore, regular changes in the external environment demand a close consideration to the application of the dynamic capabilities theory of strategic management (see section 3.1.2.2), the lens applied to explore strategic management process in Irish contracting firms.

Empirical evidence from the Chinese market revealed that the continuous alignment of a firm's capabilities with external economic conditions serves as a precondition for superior performance (Chew et al., 2008). Nevertheless, a main limitation of this study is that contractors conducted little or no systematic analysis of their internal capabilities before undertaking strategic decisions, notwithstanding that the systematic analysis of the internal and external forces is a fundamental part of the strategic management process.

Analysing internal and external forces is essential for the development of effective strategic decision in contracting firms. Data from the US construction industry revealed that financial resources (i.e. internal factors) and macroeconomic factors (i.e. external factors) accounted for 83 per cent of construction business failures from 1989 to 1993 (Dun and Bradstreet, 1993). These two dimensions had a grave impact on the survivability of contractors when compared to other firm-specific and industry-specific factors, such as operational excellence and competitive rivalry. This study revealed the importance of devoting considerable attention to financial resources and macroeconomic factors prior to undertaking strategic decisions in contracting firms.

Financial resources are of crucial importance for contractors in comparison to other factors of production. The modest profit margin and burdensome production costs raised the sensitivity of construction companies to financial issues (Arditi et al., 2000; Willis and Rankin, 2012).

The rate of return in the construction industry is considered unsatisfactory for the following reasons:

- Highly competitive business environment (Junnonen, 1998) (see section 2.2)
- The tendering process considers the tender price as the primary selection criterion in public projects (contractors may submit a dramatically low or zero profit margin if the fixed expenses of non-utilised operational capacity are higher than the anticipated loss of contract execution at a low bid price) (Oo et al., 2012).
- The high cost of bidding despite the low success rate in winning tenders (Oo et al., 2012).
- The culture of claims and counterclaims throughout the production process (Arditi et al., 2000).
- Bids are built on estimates for quantities, rates of productivity, and unit costs which can be vulnerable to personal errors and fluctuations due to external reasons that fall beyond management's control (Arditi et al., 2000).
- The client retains a certain percentage of a project's return (usually around 10 per cent) against potential defects or contract's breach of terms. Hence, contractors cannot realise any profits nor recover their expenses until the retainage is recovered. This procedure implies that contractors incur negative cash flow throughout the production process, which increases the likelihood of contractors' failure (Arditi et al., 2000).

The modest rates of return in the construction industry justify the considerable role of financial resources and macroeconomic conditions in the survival of contracting firms. Chew et al. (2008) posited that contractors need to map the market forces and forecast demand variations in order to determine the optimal level of resources, control overheads, set bidding policies, and regulate borrowing (Arditi et al., 2000). This proposition supports the relevance of the dynamic capabilities theory of strategic management to contracting firms in response to

economic cyclicalities. Correspondingly, the inherent environmental uncertainty in the construction industry influences the strategic planning approach adopted by contracting firms. Junnonen (1998) posited a proactive approach, or deliberate strategic planning (i.e. planning theory), to anticipate any economic changes that generate fluctuations in the supply of construction projects. In contrast, Anikeeff and Sriram (2008) and Isik et al. (2010) argued that the volatility of supply should be met with a prompt strategic response, or emerging strategic planning (i.e. learning theory), to avoid business failure. None of these theoretical approaches was examined to evaluate their relevance to strategic planning in construction contracting firms. Therefore, the study at hand aims to explore the strategic planning theory adopted by Irish contracting firms; either it leans toward deliberate, emergent planning, or a planned-emergent approach which combines both.

In summary, the application of strategic management in contracting companies is indispensable to overcome the adverse impact of the economic cyclicalities (Arditi et al., 2000). Several authors supported the relevance of the dynamic capabilities theory to contracting firms in response to continuous changes in the demand for construction output (Chew et al., 2008). It remains debatable if contractors should apply proactive measures to anticipate future supply or rely on an ‘emergent’ approach to strategic planning in response to macroeconomic changes. Scholars have made little progress has been made in exploring how contracting companies formulate their strategic plans (Oyewobi et al., 2015; Green et al., 2008). These gaps in knowledge will be addressed in the fieldwork phase. The following sections investigate the characteristics of the strategic planning process in contracting firms.

### 5.3 Strategic Planning Characteristics in Contracting Firms

The scope of planning in contracting companies has often been limited to the management of resources to execute construction projects (Raiden et al., 2006). While project planning

receives the majority of the emphasis from construction professionals, less attention is paid to strategic planning (Chinowsky and Meredith, 2000). The highly competitive market and economic volatility called for engaging in strategic planning to combat threats to business survival (Dansoh, 2005; Egbu and Liu, 2010). Nevertheless, the application of strategic planning in contracting firms remains in its preliminary stages (Cakmak and Tas, 2012; Chinowsky and Meredith, 2000; Dansoh, 2005; Price et al., 2003).

The limited academic attention paid to strategic planning in contracting firms begs the following questions: What are the characteristics of strategic planning within contracting companies? Furthermore, how do these characteristics affect strategic planning content (e.g. corporate strategy, business strategy) and the strategy implementation process?

Formality is one of the main characteristics of strategic planning in contracting firms (Dansoh, 2005). While some firms engage in strategic planning through a formal approach that yields a documented strategy, the majority of construction firms conduct planning organically in response to market changes (Hillebrandt and Cannon, 1990). Many construction firms act strategically through their principals without following a systematic procedure to generate and record decisions (Murphy, 2011).

Dansoh (2005) posited that a systematic approach to strategic planning in contracting firms is vital in predicting any shifts in market forces. Although an ad-hoc approach to strategic planning may prove useful, the achieved success will be short-lived since it is most probably an outcome of coincidence or sheer opportunity (Gębczyńska, 2016). Therefore, strategic planning formality is deemed essential for firms aiming to maintain their survival.

Firm size is the primary determinant of planning formality in contracting firms (Dansoh, 2005; Price et al., 2003). Large firms are more likely to have formal strategic planning processes in comparison to small ones (Dansoh, 2005; Price et al., 2003). Moreover, Dansoh (2005) found

that construction firms which are subsidiaries of multinational corporations are more likely to engage in formal strategic planning in comparison to domestic firms. The growth of contracting firms predicated a clear direction that must be determined through a formal process (Price et al., 2003). However, the degree of planning formality in Irish contracting firms is still unknown.

Formal strategic planning favours the systematic gathering of internal and external information to inform strategic decisions. The inherent uncertainty of the construction industry calls for sophisticated processes for data gathering/analysis to explore external opportunities and threats (Chinowsky and Meredith, 2000; Junnonen, 1998). Little has been mentioned in the literature with relation to the degree of planning comprehensiveness in construction contracting firms, especially in Ireland. Likewise, limited academic attention is being devoted to revealing the extent of participation in strategic planning across construction firms.

Participation in the planning process widely varies from one contracting firm to another. In the UK, it was found that several companies engage a wide array of stakeholders, including strategy specialists and focus groups (Price, 2003). On the other side, Dansoh (2005) observed that top managers dictate strategic planning in Ghanaian companies, regardless of the firm size. One can presume that the extent of participation depends on geographical location; however, a larger sample is required to validate this conclusion.

With relevance to the flow of strategic initiatives, contracting firms across dispersed geographical regions have relied on a top-down approach to strategic planning (Dansoh, 2005; Price, 2003). Despite the contemporary shift in other industries towards bottom-up flow (section 3.3.3.3), contracting firms tend to rely on top managers to initiate strategic plans then communicating these plans to lower hierarchical levels.

The engagement of project managers in strategic planning can be crucial due to their direct responsibility for implementing strategy on a project basis. The direct interaction of project managers with clients and suppliers is likely to generate valuable information that can leverage the planning process. However, contracting firms regularly rely on temporary teams to produce construction outputs. Hence, the project-based nature of contracting companies is likely to complicate the engagement of project managers in strategic planning.

The multifaceted nature of strategic planning demands the utilisation of various planning tools and techniques to facilitate the process. Evidence suggests that strategic planning tools are rarely used in contracting firms (Price et al., 2003). Murphy (2011) concluded that planning tools were rarely applied because construction professionals lack the necessary skills to deploy these tools or enough recognition of their benefits.

The modest utilisation of planning tools in contracting firms is expected to have adverse effects on the outcomes of the strategic planning process (Murphy, 2011). For instance, Langford and Male (2001) explained the importance of the scenario planning technique for construction firms. Scenario planning can reveal anticipated changes in structure and degree of competitiveness in the construction industry; hence, alternative courses of action can be considered. Therefore, one of the objectives of this study is to explore the extent of the utilisation of planning tools in Irish contracting firms. Likewise, the study in hand aims to determine the time horizon covered by the strategic plans of Irish contractors.

The findings of Chinowsky and Merideth (2000), Dansoh (2005), Price (2003), and Price et al. (2003) asserted that the favourable plan horizon for contracting companies ranges from three to five years. This timeframe is considered a forward leap beyond annual budgetary planning in construction companies (Price, 2003). On the other hand, longer horizons were considered

unrealistic due to the prevalent market turbulence and widespread economic instability (Dansoh, 2005).

Several UK firms were found to consider horizons of up to 20 years, predominantly due to a positive economic outlook (Price, 2003). However, a systematic evaluation of the strategic plan was conducted at shorter intervals. It can be concluded that the consistent monitoring and evaluation of a strategic plan makes it possible to plan for longer horizons. Strategic planning becomes an ongoing process that is regularly updated through the continuous evaluation of the outcomes of strategic planning (e.g. corporate and business strategies) (Oyewobi et al., 2015).

## 5.4 Strategic Choices of Contracting Firms

### 5.4.1 Corporate Strategy

Contracting firms need a corporate strategy to identify their business scope (i.e. target markets and offered products) and their effective mode of operation (i.e. growth, stability, or retrenchment) (Gopinath, 2003). In terms of growth, contracting firms can either grow horizontally or vertically (Teo and Runeson, 2012). Horizontal growth refers to the expansion of the activities of a firm into other geographical locations or increasing the range of offered products/services (Wheelen and Hunger, 2012). In contrast, vertical growth means business expansion throughout the value chain by taking over functions previously performed by suppliers (Junnonen, 1998).

It was observed that construction firms tend to prioritise survival over business growth due to the inherent uncertainty and modest profitability of the construction industry (Tansey et al., 2014). Construction companies tend to determine a mode of growth that generates financial solvency and minimises risks to leverage the firm's survivability (Junnonen, 1998). This observation is supported by findings from the Australian construction market (Teo and Runeson, 2012), and the Irish construction industry (Murphy, 2013). Although Murphy



(2013) has drawn her conclusion from quantity surveying firms, Irish contractors may follow the same pattern.

The limited emphasis placed on business growth by construction firms is reasoned by the significant rate of business failures in the construction industry (Arditi et al., 2000; Teo and Runeson, 2012). Moreover, Anikeeff and Sriram (2008) found a negative correlation between vertical growth and the financial performance of small contracting firms in the US. Therefore, business growth is likely to be pursued with caution in the construction industry, since over-expansion can harm the performance of contracting firms (Arditi et al., 2000).

There is a scarcity of research that ascertains the corporate strategic choices of contracting firms in Ireland. The CIF (2016) reported that large domestic firms were, in recent years, inclined towards expansion into other geographical regions. Irish contractors sought to bypass the sharp decline in demand for construction projects in Ireland due to the last economic recession. Large contractors sought to exploit available opportunities in more stable markets, such as the United Kingdom (UK), European Union (EU), and the Middle East. However, the current corporate strategy and mode of operation of Irish contractors are still unknown. One of the objectives of the study at hand is to ascertain the corporate strategic choice of construction contracting companies in Ireland.

#### 5.4.2 Business Strategy

An effective business strategy that supports the competitiveness of a construction firm is a prerequisite to achieving corporate goals. There is a lack of consensus on a precise definition of competitiveness across different industries (Porter, 1980). In a construction context, Lu (2006) defined the competitiveness of a contracting firm to be the ability to bid successfully for projects and deliver construction projects with better quality, shorter timeframe, and less cost than domestic and international competitors.

Lu (2006) relied on productivity measures (i.e. time, cost, and quality) to define firm competitiveness. Multiple scholars criticised the focus on productivity measures since it dismissed the impact of market-based factors on construction firm performance (Arditi et al., 2000; Cattell et al., 2004; Flanagan et al., 2007; Oyewobi et al., 2015). Therefore, defining contractors' competitiveness from a strategic point of view, rather than an operational one, is needed. Competitiveness of contracting firms can be defined as the ability to develop, configure, and integrate possessed resources in response to macroeconomic changes in order to maintain business survival.

Porter's generic competitive strategies have been widely adopted by contracting firms to leverage their competitiveness (Oyewobi et al., 2015; Price and Newson, 2003; Tan et al., 2012). While several firms in Hong Kong and South Africa reported substantial strategic and operational benefits of adopting competitive strategies (Oyewobi et al., 2015; Tan et al., 2012), other firms experienced a modest business return (Ling et al., 2005). The conclusions of Ling et al. (2005) asserted that the impact of the competitive strategies on competitiveness stems from selecting a suitable competitive strategy to match the prevailing economic conditions.

Despite the cost sensitivity of the construction industry, construction firms have been inclined in recent times towards adopting differentiation strategy rather than low-cost or focus strategy (Hillebrandt et al., 1995; Li and Ling, 2012; Lim et al., 2010; Tan et al., 2012). Differentiation strategy in the construction industry aims to provide clients with valuable and unique outputs at a moderate cost (Oyewobi et al., 2015). The four main parameters of construction differentiation were found to be innovation, marketing, output quality, and completion on time (Kale and Arditi, 2003; Tansey et al., 2014). Contractors rely on a differentiation strategy to raise their profit margins and escape unfavourable segments towards

favourable segments/overseas markets (Ling et al., 2005). Positive macroeconomic conditions contribute to the prevalence of the differentiation strategy; however, economic recessions are likely to exacerbate the cost sensitivity of the construction industry.

A low-cost strategy is a widespread practice among contractors bidding on public projects (Oyewobi, 2015). Public projects are characterised by cost sensitivity since public contracts are usually awarded to the lowest bidder due to legal constraints (Oo et al., 2012). Low-cost contractors emphasise operational efficiency, overhead minimisation, and reliance on economies of scale to provide the lowest price (Kale and Arditi, 2003).

Economic cyclicalities are the primary challenge to contracting companies adopting a low-cost strategy since regular changes in construction supply yields variability in workload (Teo and Runeson, 2012). Workload variability makes it difficult to determine an optimal level of resources (e.g. human and machinery resources) which is necessary to maintain efficient operational processes (Ofori, 1990). Therefore, it was suggested that contractors may need to combine more than one competitive strategy (e.g. cost-leadership and differentiation, focused differentiation or focused cost-leadership) to overcome the shortcomings of adopting a single business strategy (Allen and Helms, 2006).

Pertusa-Ortega et al. (2009) found that firms adopting a single strategy remain vulnerable to replication by competitors in comparison to contractors adopting a hybrid of competitive strategies (e.g. differentiation and cost-leadership). Moreover, the exclusive focus on a single strength reduces the resilience and adaptability of construction companies to environmental changes (Miller, 1992). Chiang et al. (2008) found that large contracting companies that integrated innovation and cost-effectiveness achieved superior performance. Innovative operational processes (e.g. prefabrication) enhanced their cost-effectiveness, raised their market share, and created rigorous barriers to potential entrants.

In Ireland, there is a shortage of studies that explore the current competitive strategies adopted by construction contracting firms (Tansey et al., 2014; Tansey and Spillane, 2016). Irish and British contracting companies responded to the sharp economic downturn between 2007 and 2012 through a combination of differentiation and low-cost strategies (Tansey and Spillane, 2016). A merge between low-cost and differentiation initiatives was adopted to overcome the decline in the supply of public projects and limited access to funding. Low-cost initiatives meant to reduce the overall cost of operation, while differentiation initiatives were adopted to improve the relationship of contractors with clients and stakeholders (Tansey et al., 2014). These findings are consistent with other studies asserting the inherent advantages of combining cost-leadership and differentiation strategies (Allen and Helms, 2006).

While the findings of Tansey et al. (2014) and Tansey and Spillane (2016) reflected the strategic response of Irish contracting companies to the economic crisis in 2007-2008, the current business strategies adopted by construction contractors in Ireland remain unknown. The study in hand aims to address this gap in the body of knowledge by exploring the business strategy adopted by Irish construction contractors. The next section discusses the implementation of strategy in construction firms.

### 5.5 Strategy Implementation in Contracting Firms

Strategic management research in construction is heavily biased towards strategic planning with a modest emphasis placed on the implementation phase. The process by which contracting firms operationalise their strategic objectives received limited attention from scholars. Strategy implementation in contracting firms mandates a robust alignment between strategic planning and individual projects since projects are the primary mechanisms for implementing strategy and serving clients (Boyer and McDermott, 1999). However, aligning individual projects with strategic objectives is a complex process that is compounded by the project-based nature of contracting firms (see section 4.5).

Several strategy implementation frameworks and models were developed, encompassing relevant elements to executing strategy (see section 4.3). These frameworks/models should be customised according to the industry characteristics, or the strategic orientation of the firm. This customisation is important in identifying the relative importance of the implementation factors and reveal the synergies between these variables.

Scholars posited that resources are the principal component of any strategy implementation framework targeting contracting firms due to the labour and capital intensity of the construction intensity (Arditi et al., 2000). This argument is consistent with the dominance of the resource-based view amongst contracting companies (Phua, 2006; Chew et al. 2008; Li and Ling; 2012). However, there is a scarcity of research to explore the primary factors of strategy implementation in contracting firms. In Ireland, few studies have been published in this regard. Therefore, the primary components of the strategy implementation process and the extent of integration between strategic planning and strategy implementation requires in-depth inquisition. Addressing these gaps in knowledge is a primary objective for the study in hand.

## 5.6 Summary

Scholars agreed that construction firms need to craft and implement a coherent strategy to address the highly competitive intensity and impacts of economic cyclicalities (Dikmen and Birgonul, 2003; Murphy, 2011; Oyewobi et al., 2015; Phua, 2006). Nevertheless, few studies sought to explore the strategic planning/implementation processes in construction firms in Ireland (Murphy, 2011; Murphy, 2013; Tansey et al., 2014; Tansey and Spillane, 2016). These studies were either focused on quantity surveying firms (Murphy, 2011; Murphy, 2013) or devoted to the strategic response of Irish contractors to the last economic recession (Tansey et al., 2014; Tansey and Spillane, 2016).

The study at hand aims to explore the characteristics of the strategic planning process, factors of the strategy implementation process, as well as barriers to integrating both processes. The rationale behind this study is to bridge the gap between the planning and implementation phases of strategic management in construction contracting firms in Ireland.

## Chapter 6. Research Methodology

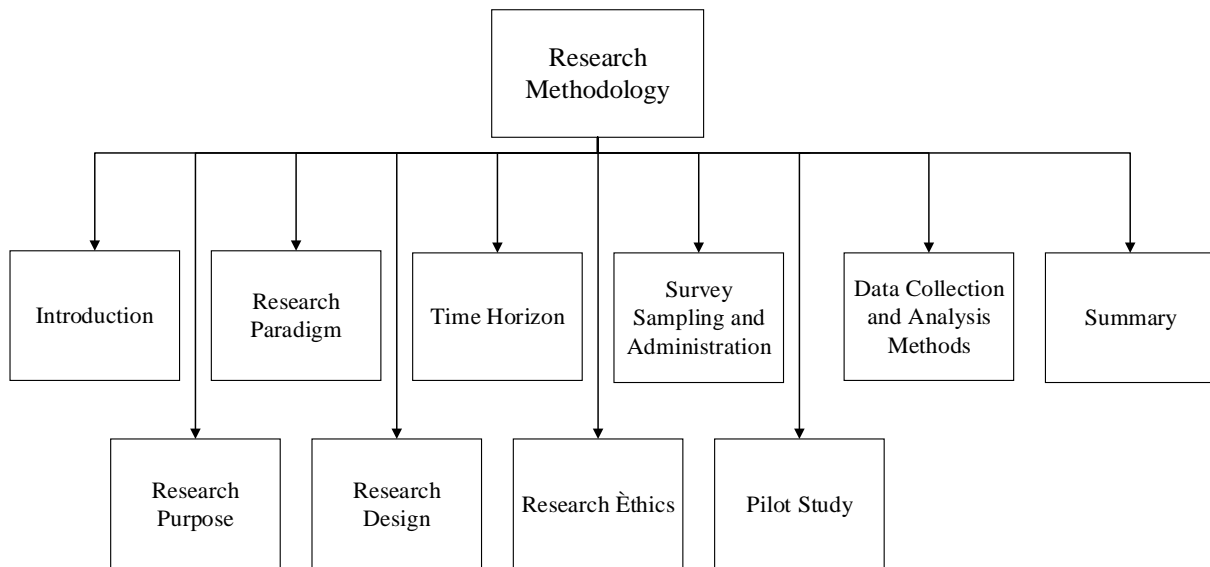


Figure 6. 1: Map of chapter 6

### 6.1 Introduction

The previous chapter identified critical gaps in the strategic management literature about the integration between strategic planning and strategy implementation in project-based firms. The literature review established a compelling need to ascertain strategic planning characteristics, determine the key factors of the strategy implementation process, and explore the barriers to integrating strategic planning with strategy implementation in the Irish turbulent industry environment. These objectives are necessary to develop a framework that bridges the gap between strategic planning and strategy implementation in Irish project-based construction contracting companies. Accordingly, this chapter aims to justify the proposed research paradigm to address this disparity.

The research methodology chapter is organised to present several principal themes. First, it starts with highlighting the different research purposes in literature and identifying the purpose of this study. Secondly, a review of the dominant research paradigms in the strategic management field is presented, and the philosophical underpinnings of the espoused research

approach are outlined. Subsequently, the rationale behind the research design is discussed. Moreover, the unit of analysis, sampling techniques, and pilot phases are discussed. Ethical considerations of the research process are explained. The sampling process is then explained, and thorough justification for the sampling criteria is presented. Finally, data collection approaches are explained to support the research validity and reliability. This chapter reveals the means of access to market-based knowledge in order to accomplish the research objectives.

## 6.2 Research Purpose

The primary purpose of a research project is to answer a research question and accomplish the project's objectives. According to Saunders et al. (2009), the classification of research purpose most often used in the research methods literature is the threefold one of descriptive, explanatory, and exploratory. The three research purposes are expounded below:

**Descriptive research:** aims to describe the characteristics of population or phenomenon under investigation. It focuses on identifying 'what' are the characteristics of a particular phenomenon rather than 'why' is it occurring.

**Explanatory research:** seeks to explain 'why' a phenomenon occurs by building casual relationships between variables. Explanatory studies seek to find causalities by uncovering the association between two or more variables under investigation.

**Exploratory research:** an investigation into a problem or situation to provides deep insights and possible solutions. The research is meant to provide details where a small amount of information exists.

It remains important to ascertain that a research study may have more than one purpose (Robson, 2002; Saunders et al., 2009). Most social studies have elements of several of these purposes (Rubin and Babbie, 2013). This research investigation is a blend of descriptive and



explorative research. The first two objectives are descriptive in nature as they aim to describe the characteristics and primary factors of strategy formulation and implementation processes in Irish contracting firms. Moreover, the third and fourth objectives, as well as the research question, are explorative since they aim to explore the extent of integration between strategy formulation and implementation processes across the study sample.

### 6.3 Research Paradigm

Any claim to develop a framework or theory puts an onerous responsibility on the researcher to devote careful consideration to the adopted research paradigm. A research paradigm is a roadmap that determines the rules and methods used by a researcher to expose his work to analysis, critique, and replication (Given, 2008). Paradigm enables a researcher to choose an appropriate research method that suits the nature of a topic under investigation. Hence, it can be argued that the chosen research method is of secondary importance when compared to the espoused research paradigm (Guba and Lincoln, 1994).

The research paradigm was defined as ‘the basic belief system or world view that guides the investigation, not only in choices of method but in ontologically and epistemologically fundamental ways’ (Saunders et al., 2009, pp. 106). The paradigm contains important assumptions about: what is accepted to be a truth, how truths are discovered to develop credible knowledge, and the relationship between a researcher and participants (Johnson and Clark, 2006). These assumptions influence how the research methodology is designed to approach a research problem, and subsequently accomplish the research aim (Ponterotto, 2005).

A chosen research paradigm provides philosophical guidance to the selection of the research method, instruments, and unit of analysis (Denzin and Lincoln, 2000). It is difficult to standardise a single paradigm that can be applied for all academic investigations. A research paradigm has to be selected according to the nature and scope of the research topic (Bell, 2005).

Having this background, it is then imperative to question the philosophical underpinnings of the research paradigm employed in this research inquiry.

A range of research paradigms can plausibly be adopted when researching in the field of business management, such as positivism, realism, interpretivism, and pragmatism (Holt and Goulding, 2014; Saunders et al., 2009). These paradigms are regularly deployed in social studies to examine social phenomena and provide explanations/understanding of the phenomena in question (Saunders et al., 2009).

Table 6.1 provides a comparison of the four research paradigms with respect to their ontological, epistemological, and axiological strands.

	<b>Positivism</b>	<b>Realism</b>	<b>Interpretivism</b>	<b>Pragmatism</b>
<b>Ontology:</b> the researcher's view of the nature of reality.	External, objective and independent of social actors.	Objective. Exists independently of human thought and belief or knowledge of their existence (realist) but is interpreted through social conditioning (critical realism).	Socially constructed and subjective.	External, multiple views chosen to enable the best answer to the research question.
<b>Epistemology:</b> the researcher's view on what constitutes acceptable knowledge	Only observable phenomena can provide credible data/facts. Focus on causality, law-like generalisations, and reducing phenomena to	Observable phenomena provide credible data/facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena	Subjective meanings and social phenomena. Focus on the details of the situation, the reality behind these details, and subjective meanings	Observable phenomena and/or subjective meanings can provide acceptable knowledge dependent upon the research question. Focus

	the simplest elements.	create sensations which are vulnerable to misinterpretation (critical realism). Focus on explaining within a context.	motivating actions.	on practical applied research, integrating different perspectives to help interpret the data.
<b>Axiology:</b> the researcher's view of the role of personal values and beliefs in research	Research is undertaken in a value-free way; the researcher is independent of the data and maintains an objective stance.	Research is value-laden; the researcher is biased by worldviews, cultural experiences and upbringing. These will affect the research.	Research is value bound; the researcher is part of what is being researched. Therefore, the research is mainly subjective.	Values play a significant role in interpreting results, the researcher adopting both objective and subjective points of view.
<b>Data Collection Techniques Often Used</b>	Highly structured, large samples, quantitative but can use qualitative.	The method chosen must fit the subject matter, quantitative or qualitative.	Small samples, in-depth investigations, qualitative.	Mixed or multiple method designs, quantitative and qualitative.

Table 6. 1: Comparison of 4 paradigms in management research (Saunders et al. 2009, pp. 119)

The above table compares between the four philosophical paradigms commonly used in management studies with respect to their ontological, epistemological, and axiological strands. The ontology describes the researcher's system of belief on what constitutes a fact. Epistemology outlines a researcher's view on how acceptable knowledge can be generated. Finally, axiology explains the impact of the researcher's values on all stages of the research process. Each research paradigm has different theoretical assumptions regarding their ontological, epistemological, and axiological strands. The selection of a research paradigm mainly depends on the research problem in hand and how a researcher aims to address it.

Dainty (2008) and Love et al. (2002) observed the dominance of the positivism and interpretivism paradigms in construction management studies. However, there is a radical distinction between both philosophical paradigms in terms of their ontological, epistemological and axiological strands. Positivism aims to explain phenomena by showing that they conform to well-established scientific laws, such as those relating to pressure and volume. It aims to reach established empirical facts through hypothesis testing (Dudovskiy, 2018; Ponterotto, 2005). The generation of credible knowledge and law-like generalisations depends on observing accessible objects and data rather than personal impressions (Remenyi et al. 1998). Positivists rely on a highly structured approach in conducting research; they identify a precise research topic, then construct an appropriate hypothesis to be tested for generating acceptable knowledge (Carson et al., 2001).

The positivist ontology views the world through an external lens (Carson et al., 2001), and believes that there is a single objective reality to any research phenomenon (Hudson and Ozanne, 1988). Positivists advocate quantitative research methods to collect observable data that leads to reaching scientific facts (Savin-Baden and Major, 2013). Statistical and mathematical techniques are central to positivist research. These methods adhere to structured research techniques aiming to uncover objective reality (Carson et al., 2001).

Positivism is widely adopted in business and management studies (Dainty, 2008). However, the frequent reliance on positivism in management research has been critiqued by multiple scholars (Dudovskiy, 2018; Udamu and Sylva, 2015). It was argued that the premature use of positivism had thwarted progress in the management field (MacLennan, 2009). Positivist studies usually describe the nature and causes of a problem without attempting to prescribe solutions to managerial problems (Udamu and Sylva, 2015). The lack of consideration to the impact of the human factor, the primary organisational actor, leaves the research findings far

from reflecting an actual organisational reality or gaining effective solutions to managerial issues. Therefore, it can be concluded that the limitations of positivism restrict the creation of comprehensive knowledge in the complex field of management.

The advocates of interpretivism, on the other hand, believe in the relativity of a reality (Hudson and Ozanne, 1988). The presence of multiple realities depends on the personal interpretation of a social phenomenon, in addition to the contextual factors affecting it. Hence, interpretivists argue that the social world of management is far too complex and unique to be reduced to a series of generalisations. Business situations are a function of a set of circumstances and individuals coming together at a specific period (Saunders et al., 2009). Therefore, a research must understand the impact of the human actor on the phenomenon under investigation. This impact may vary from one situation to another since every human actor interprets and acts uniquely according to the surrounding conditions.

Interpretivist research aims to understand and interpret the meanings in human behaviour, rather than reaching generalisations or establishing cause and effect (Neuman, 2000). Interpretivists believe in the importance of understanding personal motives, meanings, reasons and other subjective experiences which are bound to a specific duration and context to create credible knowledge (Hudson and Ozanne, 1988).

Interpretivists approach theory-building by immersing themselves into the social context. They rely on qualitative research methods to draw meanings from the personal experiences of the research participants. Likewise, they avoid rigid structural research frameworks, like those used by positivists, and adopt more flexible research structures that can capture meanings through human interactions (Black, 2006). Hence, the knowledge acquired in this discipline is socially constructed rather than objectively determined (Carson et al., 2001).

Another point of distinction between positivism and interpretivism lies in the value position of the researcher (Saunders et al. 2009). Positivists tend to be detached from the research participants, which is important in remaining emotionally neutral to make clear distinctions between reasons and feelings (Carson et al., 2001). They seek objectivity by relying on logical and rational approaches to research. Therefore, positivists maintain a clear distinction between scientific facts and personal experiences.

While positivism advocates a value-free position of a researcher, interpretivists believe that the values and theoretical beliefs of a researcher cannot be entirely removed from a research inquiry (Remenyi et al. 1998). Interpretivists believe that conducting entirely objective research is unattainable in practice; a researcher must interpret the collected data during the process of theory-building. An interpretivist researcher starts an investigation with some prior insight into the research context but assumes that this knowledge is insufficient to build a theory (Hudson and Ozanne, 1988). Therefore, the researcher is still open to new knowledge throughout the study and let it develop with the support of the informants.

Dainty (2008) posited that none of these paradigms on its own is sufficient to research in the field of management. A paradigm that combines the strengths of positivism and interpretivism is the best suit for management research (Love et al., 2002). This argument is supported by the findings of Oyewobi (2015). He suggested that the inherent complexity of the construction industry requires a paradigm that integrates between the objectivity of positivism and the depth of interpretivism.

The complexity and diversity of the investigated issues in this study require a multifaceted research approach that combines quantitative and qualitative data. Ascertaining the strategic type, strategic planning approach, strategic planning characteristics, determining the key factors of the strategy implementation process, and exploring the extent of alignment between

strategic planning and strategy implementation calls for the integration of observable facts with personal experiences of research participants to reach new knowledge.

*‘If the research question does not suggest unambiguously that either a positivist or interpretivist philosophy is adopted, this confirms the pragmatist’s view that it is perfectly possible to work with both philosophies.’* (Saunders et al., 2009, pp. 110)

The combination of quantitative and qualitative methods is defined as mixed methods research (Saunders et al., 2009). It involves the collection and analysis of both quantitative and qualitative data, in addition to integrating the two sets of results at some point to draw inferences from the gathered qualitative and quantitative data (Tashakkori and Creswell, 2007). The integration between both sets of results can provide a better understanding of the research topic, enable a more detailed answer to a research question, and identify new research questions (Creswell and Plano-Clark, 2011).

Mixed methods were recommended for studies that emphasise the resource-based view of strategic management (Murphy, 2011). Given that the dynamic capabilities theory, an extension of the resource-based view, is the lens applied to explore the strategic management process in Irish contracting firms, mixed methods are deemed most suitable for the study in hand. Pragmatism has often been classified as the appropriate philosophical paradigm for conducting mixed methods research (Creswell and Plano-Clark, 2011; Denscombe, 2007; Johnson and Gray, 2010; Morgan, 2007; Onwuegbuzie and Johnson, 2006; Scott and Briggs, 2009; Teddlie and Tashakkori, 2009). Therefore, the espoused research paradigm in this study is the pragmatic paradigm that integrates between positivism (quantitative research) and interpretivism (qualitative research).

Pragmatism focuses on creating constructive knowledge by tackling existing problems and later translating the developed knowledge into action (Fendt et al., 2008; Tashakkori and

Teddle, 1998). The pragmatic philosophical school stresses the connection between truth and action. According to the pragmatic theory of truth, one cannot conceive of the truth of a belief without being able to conceive of how that belief, if true, matters in the world.

Pragmatism places considerable emphasis on the fusion of knowledge and action without treating any of these elements as mutually exclusive (Fendt et al., 2008). The paradigm focuses on creating constructive knowledge, then analysing its impact on the external world. This connotation is highly relevant to the research in hand. This study aims to generate credible knowledge that ascertains the characteristics and components of strategic planning and strategy implementation processes. This knowledge will be useful to explore the extent of integration between strategic planning and strategy implementation in practice. The integration between both processes is one of the primary determinants of the success or failure of strategic management in construction project-based firms. Therefore, the creation of knowledge in this study is meant to tackle a pressing challenge in the external world (i.e. the high rate of strategic management failure in project-based firms).

Pragmatism is widely accepted as a plausible research paradigm that supports pluralistic approaches of research to obtain different views of truth through diverse forms of data collection and analysis (Creswell, 2003). According to Creswell (2003), pragmatism provides a basis for knowledge which is characterised by the following:

- Pragmatism integrates between positivism and interpretivism; it is not committed to a single philosophy.
- Researcher exercise freedom of power to choose the appropriate research methods, techniques, and procedures that best meet their research aim and objectives.



- Pragmatists conceive the truth to be multifaceted; they rely on mixed research methods to collect and analyse data (quantitative and qualitative) since mixed methods work together to provide the best understanding of a research problem.
- Pragmatism tends to answer ‘what’ and ‘how’ research questions. Hence, it is a suitable paradigm for descriptive and exploratory studies.

In summary, the multifaceted nature of the pragmatic paradigm is compatible with the multifaceted nature of research in strategic management. Observable facts and subjective meanings can provide acceptable knowledge regarding the extent of the integration of strategy formulation and implementation in construction firms. Therefore, a pragmatism research paradigm that merges positivism and interpretivism is mandatory to fulfil this study’s aims and objectives.

#### 6.4 Research Design

The research design is a general plan that explains how the research question is to be answered (Saunders et al., 2009). It will specify the choice of the research approach, research strategy, data collection techniques, analysis procedures, and the time horizon of the study. These choices should be based on the research question and objectives, as well as being consistent with the research philosophy and purpose.

Saunders et al. (2009) proposed the *research onion* to outline the various components of the research methodology process.

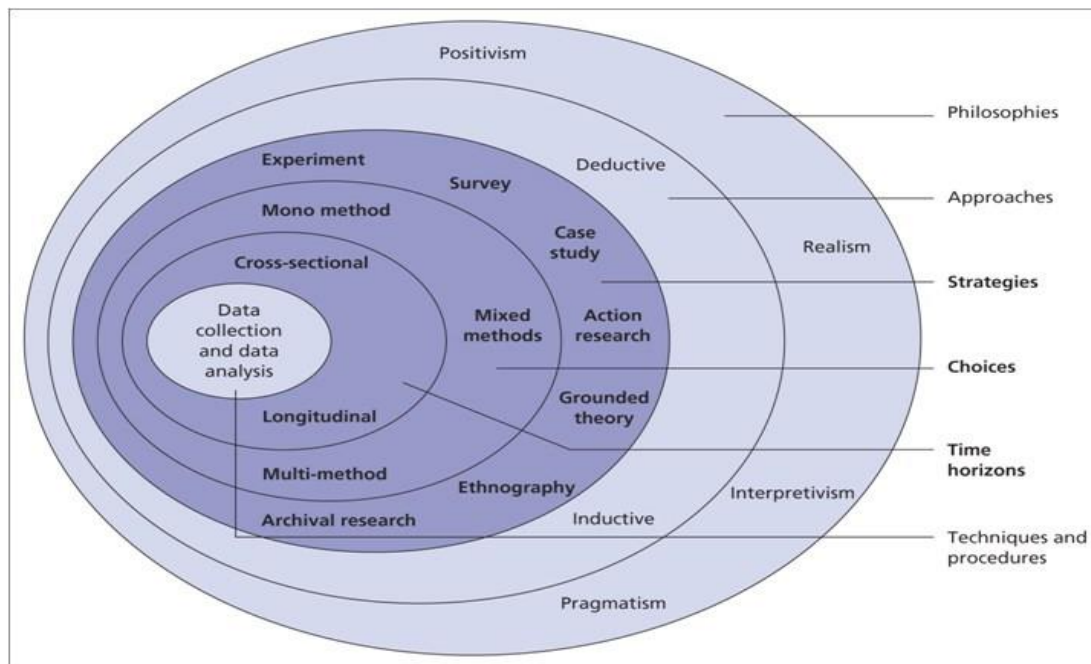


Figure 6. 2: The research onion (Saunders et al., 2009, pp. 108)

In figure 6.2, Saunders et al. (2009) listed the two approaches to research, seven different research strategies, three research choices, and two kinds of research time horizons.

## Research Approach

Saunders et al. (2009) focused on the two commonly adopted approaches in scientific research: deduction and induction. Nevertheless, there is a third approach, referred to as abduction, set to address weaknesses associated with both deductive and inductive approaches (Mitchell, 2018). Deduction is the dominant research approach in natural sciences, where scientific laws represent the basis of the explanation of any phenomena (Collis and Hussey 2003). It involves the development of theory through rigorous testing of a scientific hypothesis (i.e. a testable proposition about the relationship between two or more concepts or variables) (Saunders et al., 2009). Deduction is also referred to as the top-down approach to scientific research (Trochim and Donnelly, 2008).

Robson (2002) listed five sequential steps through which the deductive approach progresses:

1. Deducing a hypothesis regarding the relationship between two variables from a theory.
2. Determining how the relationship between these two variables will be measured.
3. Testing the hypothesis.
4. Examining the outcome—if it has confirmed or refuted the hypothesis.
5. If necessary, modifying the theory in light of the findings.

Finally, a sample of sufficient numerical size should be included in the study to be able to generalise the findings.

The alternative approach to conducting scientific research is induction, which enables a study to understand how humans interpret their social world (Saunders et al., 2009). Induction is the dominant approach in social sciences since it places less emphasis on generalisations, and instead, it fosters the understanding of a phenomenon within its context through a flexible investigation structure (Easrerby-Smith et al., 2012).

Inductive research starts with observing social phenomena, then theories are proposed towards the end of the research process as a result of the observations (Goddard and Melville, 2004). However, it is still important to stress that induction does not imply disregarding theories when formulating research question and objectives. The approach aims to generate meanings from the collected data in order to find patterns and relationships to build a theory. However, the inductive approach does not prevent a researcher from relying on existing theory to formulate a research question to be explored (Saunders et al., 2009).

In management research, induction begins with detailed observations of social phenomena, which are usually reduced to abstract generalisations (Neuman, 2000). An inductive researcher tends to explore relationships between different variables while progressing through research. No hypotheses can be found at the initial stages of the research. Likewise, a researcher is not sure about the nature of the research findings until the study is completed. The inductive

approach is often referred to as a bottom-up approach, in which a researcher uses observations to build a theory or describe a phenomenon (Lodico et al., 2010).

Finally, abductive reasoning aims to develop incomplete observations from personal experiences and reality into logical inferences and constructed theories (Mitchell, 2018). Abduction is considered a middle ground between deduction and abduction (Patokorpi and Ahvenainen, 2009). With the abductive approach, the research process starts with an empirical phenomenon that cannot be explained by the existing range of theories. The researcher then seeks to develop new knowledge through numerical and cognitive reasoning to explain the phenomenon under investigation.

Easrby-Smith et al. (2012) suggested that the choice of research approach is vital for three reasons:

1. It enables a researcher to take a more informed decision on research design (e.g. what kind of data is to be gathered, the study sample, and how this data will be interpreted to provide a credible answer to the research question).
2. It identifies the most suitable research strategies for data collection.
3. It facilitates the adaptation of a study to the existing constraints (e.g. limited access to data, lack of prior knowledge of the subject).

As a result, this study adopts the inductive research approach. Induction fits with the nature of this study since it leans towards theory building rather than theory testing. The study aims to generate a theory for integrating strategic planning and strategy implementation in construction contracting firms. This theory is bound to the circumstances of the Irish turbulent industry environment. Likewise, the lack of prior knowledge regarding the type, characteristics, and factors of strategic management processes in domestic firms is a fundamental barrier to adopting deductive or abductive approaches.

## Research Strategy

Several strategies can be applied to solve research problems. In table 6.2, Saunders et al. (2009)

listed seven research strategies that can be applied in research:

Research Strategy	Purpose	Advantages	Limitations
Experiment	To study the causal links between variables, whether a change in one independent variable leads to a change in another dependent variable. Experiments are commonly used in exploratory and explanatory research.	Easy to use, easy to replicate, precise.	Difficult to validate results in real-world settings, ethical issues, difficult to have a broad representative sample, usually costly and complicated.
Survey	To collect a large amount of data from a sizeable population economically. Data can be used to find the reasons of an incident, determine the relationship between variables, in addition to the development of models/frameworks that explain this relationship. Surveys tend to be used for explorative and descriptive research.	Provides empirical data that are wide and inclusive, results can be generalised, relatively easy to administer, can be cost-effective.	Accuracy and reliability of collected responses since participants may interpret questions differently.
Case study	To conduct an empirical investigation of a phenomenon within its real-life context. It is useful to gain a rich understanding of the context of a particular situation using multiple sources of evidence. This strategy is often used in exploratory and explanatory research.	Provides in-depth insight into a phenomenon, considers the real-world context.	Difficult to generalise due to the limited sample involved in research.

Action research	Concerned with the resolution of practical issues with those who experience the issues in real organisations. Action research differs from other research strategies because of its explicit focus on action; hence, it is likely to be associated with applied research.	Tackles practical problems in business; hence, it is useful in applied research, beneficial to participants.	Ethical issues, research scope is limited to an entity/small number of entities.
Grounded theory	Used to predict and explain the personal behaviour of individuals to build a theory. In grounded theory, the process of data collection starts without the formation of a theoretical framework.	Helps in investigating social topics that have attracted little prior research attention, or previous research lacked enough breadth/depth, early and systematic data analysis.	Produces a large amount of data that is difficult to manage, a detailed method that usually does not provide a bigger picture.
Ethnography	It describes and explains the social world in-depth. A phenomenon is investigated within the context in which it occurs without using data collection techniques that oversimplify social complexities. Ethnography strategy is time-consuming since it involves extended observation of participants.	Immerses a researcher in the local context, simplifies the process of studying unconventional topics, allows a researcher to reflect on his own experiences.	Time-consuming, complicated in terms of confidentiality, lack of participant interest is a common issue.
Archival research	Makes use of administrative records and documents as a source of data to answer research questions which focus on the past and on changes over time.	Allows a broader view of trends and outcomes, can be cost-effective.	Previous research can be unreliable, data may prove to be incomplete or fail to address certain key issues.

Table 6. 2: Research strategies in business and management studies (Saunders et al., 2009)

This research inquiry seeks to explore the strategic type, strategic planning characteristics, and elements of the strategy implementation process in Irish construction contracting firms. A large study sample is needed in order to ensure the credibility and generalisability of the findings. Nevertheless, the generalisation of findings is limited to firms registered in representative bodies in Ireland (i.e. CIF and CIRI). Moreover, the standardisation of the collected data is imperative to facilitate conducting a comparative analysis between companies of different sizes. Therefore, the survey strategy is deployed in this study due to its strengths. It is deemed relevant to this investigation as explained in Table 6.2.

The survey strategy allows for comprehensive data gathering and detailed analysis. It is the most widely used strategy in scientific and business research (Robson, 2002). Likewise, it is a common strategy in studies adopting a pragmatic paradigm to answer a research question (Saunders et al., 2009). Some researchers tend to associate particular research strategies with research paradigms (Easrby-Smith et al., 2012; Saunders et al., 2009). For instance, survey research is often associated with positivism and pragmatism, while ethnography is associated with realism and interpretivism. However, Saunders et al. (2009) affirmed that this association is not definite. Surveys, for example, can be used by interpretivists to fulfil their research objectives.

## **Research Choice**

Saunders et al. (2009) listed survey data collection methods as questionnaires, interviews, content analysis, and focus groups. Survey data collection combines quantitative data collection methods (e.g. questionnaires) and qualitative instruments (e.g. interviews). Qualitative methods are often used to explore why and how a phenomenon occurs in order to develop a theory or describe the phenomenon comprehensively. On the other hand, quantitative instruments address questions about generalisability, causality, and magnitude of effect (Fetters

et al. 2013). Mixed methods research, often referred to as the ‘third methodological orientation’ (Teddle and Tashakkori 2008), draws on the strengths of both qualitative and quantitative methods.

Creswell and Plano-Clark (2011) defined mixed methods research to be the separate collection and analysis of both qualitative and quantitative strands of data, then integrating this data—either concurrently or sequentially—to address a research question. Instead of approaching a research question through the binary lens of quantitative or qualitative research, mixed methods research can advance the scholarly conversation by drawing on the strengths of both methods.

The primary advantage of relying on mixed methods is to overcome the limitations associated with mono-method research (Creswell et al., 2003; Onwuegbuzie and Johnson, 2006; Teddle and Tashakkori, 2009). For instance, Teddle and Tashakkori (2009) point out that combining questionnaires and interviews in a single research study brings together the advantages of the breadth and depth associated with both methods. Integrating both methods provides a complete picture of a research topic to address a range of research questions. This integration can produce comprehensive knowledge to enhance the process of theory development (Johnson and Onwuegbuzie, 2004)

Bryman (2006) outlined the benefits of mixed methods research as follows:

- Triangulation: The use of two or more of data collection methods to foster research findings.
- Facilitation: The use of one method to aid research performed using another method (e.g. providing the hypothesis or selection of participants).
- Complementarity: The use of one method to fill the gap in another research method.
- Study different aspects: Quantitative to look at macro aspects and qualitative to look at micro aspects.



Mixed methods research is perceived as an optimal approach to address research problems in strategic management studies (Molina-Azorin, 2012). In the context of construction management, Love et al. (2002) asserted the necessity of a mixed-methods approach to finding solutions for the complicated problems confronting construction firms. Therefore, a mixed-methods approach for data collection is adopted to accomplish the aim and objectives of this research study.

The data collection process was designed according to the typology of Creswell and Plano-Clark (2011) for mixed methods design. Creswell and Plano-Clark (2011) proposed six types of mixed methods design: convergent parallel, explanatory sequential, exploratory sequential, embedded design, transformative design, and multiphase design. Despite being a descriptive-exploratory study, this research study adopts an explanatory sequential design. Hence, it comprises a phase of quantitative data collection and then gathering qualitative data to elaborate on the quantitative findings.

Quantitative findings are used to gain general insights into the research problem and accomplish the first two research objectives. Moreover, the qualitative phase serves to refine and gain in-depth insights into the findings of the first phase (Creswell and Plano-Clark, 2011). In the context of social science, Bryman (2006) examined 200 studies to suggest that quantitative research should be conducted through questionnaires, while a qualitative phase tends to be associated with semi-structured interviews. Hence, data will be collected through mixed research methods: the first is a survey questionnaire, and the second method is semi-structured interviews.

#### 6.4.1 Phase 1: Quantitative research method

Quantitative research is grounded within the positivism philosophical paradigm (Saunders et al. 2009). The quantitative approach ideologically suggests that human behaviour can be

explained by observable facts (Amaratunga et al., 2002). Hence, positivists usually adopt quantitative data collection methods, such as experiments or surveys, generating data that is statistically analysed (Saunders et al. 2009).

The findings of quantitative studies that encompass a relatively large study sample can be generalised to the entire population (Saunders et al., 2009). This study, therefore, utilises a quantitative survey questionnaire to observe facts regarding the characteristics of strategy formulation and implementation processes, as well as generate representative data for the entire population under investigation.

DeVaus (2002) defined questionnaires to be a range of techniques for data collection in which each person is asked to respond to a fixed set of questions in a predetermined order. The questionnaire is the most common data collection technique within the survey strategy (Saunders et al., 2009; Stiles, 2003). It is a useful technique for generating representative data from a large random sample. A self-administered questionnaire was sent to respondents electronically using the internet (Appendix A). The advantages of relying on a self-administered internet-mediated questionnaire are reaching a large sample size in dispersed geographical locations, low likelihood of distortion in the collected responses, and easy access to appropriate respondents (Saunders et al., 2009).

The questionnaire was designed to collect the precise data needed to achieve the research objectives. A research proposal was submitted to the CIF to incorporate a widespread survey to all the registered construction contracting firms in the representative body (Appendix B). Creswell (2003) asserted that questionnaire design is a cornerstone for collecting valid and reliable data. A valid questionnaire enables the collection of accurate data, and a reliable one means that the data collection techniques yield consistent findings (Easterby-Smith et al. 2008). Therefore, careful questions design, clear questionnaire layout, and explanation of the purpose

of each section were considered to maximise the response rate and research credibility (Robson, 2002).

The questionnaire was organised into four sections, including multiple-choice, open-ended, and Likert-scale questions. The Likert-scale questions were consistent throughout the questionnaire; they consisted of five answer choices to measure the extent of agreement respondents had with a set of proposed statements (Holt, 2014). Likert scales were kept consistent, 5 points, going from strongly disagree to strongly agree in each instance. Data was obtained from the online survey tool providing number of responses and percentages for each option selected

The first section was designed to elicit general information about the respondent and the respondent's company. This section sought to gather information regarding the respondent's position, the sectors serviced by the company, the duration of the company's existence, the company's size in terms of the total number of full-time employees, the company's ownership structure, and the regions of the company's business activities. Similar demographic information has been obtained in other studies in the field of strategic management in the construction industry in Ireland (Murphy, 2011). This general information is essential for conducting a comparative analysis of strategic management practices across contracting companies.

The second section aimed to identify the companies' current corporate and business strategies, as well as to reflect changes in this regard over the last five years. The rationale behind the five-year horizon is that strategic management literature asserted the benefits of a duration of five years for strategic plans in construction business practices (Chinowsky and Merideth, 2000; Dansoh, 2005; Price, 2003; Price et al. 2003). Questions were posed regarding each company's strategy formulation approach (Ansoff et al., 1974; Mintzberg et al., 1986; Barney,

1991; Teece et al., 1997), strategic type (Miles and Snow, 1978), and strategic choices (Hunger and Wheelen, 2010; Porter, 1979).

The purpose of the third section was to explore the characteristics and barriers to strategic planning in contracting companies. This section was primarily influenced by several studies in the area of strategic planning characteristics, including planning formality (Brinckmann et al., 2010; Price et al., 2003), comprehensiveness (Killen et al., 2005; Chinowsky and Meredith, 2000), participation and flow (Gimbert et al., 2010; Price, 2003; Papke-Shields et al., 2006; Dansoh, 2005), and planning tools (Dincer et al., 2006; Price et al., 2003).

When a firm confirmed the existence of a formally documented strategic plan, further questions were posed regarding the planning horizon (Gkliatis and Koufopoulos, 2013; Oyewobi et al., 2015), the purpose of engaging in strategic planning (Murphy, 2011), and barriers to strategizing (Harris and Ogbonna, 2006). It was possible for respondents who represented companies with no written plans to skip the remaining questions and exit the survey at this point. However, it was also possible to answer the remaining questions if they wished, since it was found that numerous construction companies engage in strategic planning in an informal, organic manner (Murphy, 2011).

The final section of the questionnaire sought to determine the key factors of the strategy implementation process in contracting companies (Higgins, 2005) and explore barriers to implementing strategy. An in-depth discussion with respondents explored the barriers they experience when implementing strategy and proposed solutions to this dichotomy. Therefore, respondents were asked if they wished to take part in the qualitative phase that involved a semi-structured interview to gaining further insights into the findings of the survey.

#### 6.4.2 Phase 2: Qualitative research method

The qualitative research approach is considered to be interpretivist in nature (Saunders et al., 2009). Interpretivism supports the viewpoint that the business and management world is far too complex to be reduced to a series of law-like generalisations. This philosophical stance recognises the personal experiences of research participants, as well as the association between personal consciousness and external objects (Ardley, 2008).

Qualitative research methods emphasise the comprehensive investigating of textual data, which is usually gathered in a conversational format through interviews (Neuman, 2000). Interviews are deemed the most appropriate mechanism to collect data that provides a full understanding of the numerous facets of strategic planning in construction (Murphy, 2011). Interviews are particularly useful in exploratory studies; they provide an in-depth understanding of the phenomena under investigation since they assist in the portrayal of multiple views (Gubrium and Holstein, 2002; Saunders et al., 2009). Hence, the interview data collection technique was adopted to gain insights into the strategic management process in Irish contracting firms. Senior managers were targeted due to their significant input into the strategic planning and management of construction firms.

Several techniques exist for conducting interviews (e.g. unstructured, semi-structured, and structured) (Robson, 2002). Semi-structured interview approach was applied in this investigation. Semi-structure interviews are superbly suited when few open-ended questions require follow-up queries (Newcomer et al., 2015). An interview prompt sheet that entails a set of questions, open-ended and closed-ended, were developed in advance of the interviews (see appendix D). The Interview Prompt Sheet encompassed the following eight sections.

## Section 1: General Company Information

Interviews commenced with questions about company demographics. Firm size, number of years in business, role in the company, and key sectors serviced were addressed. These questions were used to explore the correlation between firm size and key sectors serviced with strategic management practices.

## Section 2: Corporate and Business Strategy

The second group of questions centred on the firm's overriding objectives. What is the overriding goal of the company? has it changed over the past five years? how do they compete in the market to achieve this goal? and whether this mechanism has changed over the last five years?

Regarding the overriding goal of the company, respondents were asked to choose from (growth, maintain market share, or downsize) to reveal the mode of operation, which is a fundamental component of corporate strategy. Moreover, Porter's (1980) competitive strategies were the strands used to determine the mechanism by which firms aim to achieve their strategic goal.

## Section 3: Characteristics of Strategy Formulation

This section sought to explore the dimensions of strategic planning in Irish contracting firms. Respondents were asked to determine who participate in setting their strategic goals, whether they document their strategic objectives or not, the extent of exhaustiveness in gathering internal and external data, the use of strategic planning tools, the formality of strategic planning process, and the duration covered by the strategic plan.

## Section 4: Environmental Turbulence

These questions were concerned with describing the construction industry in Ireland. Respondents were asked to describe the current state of the industry, degree of turbulence, how

does environmental turbulence affect their companies, and how does it affect strategic goals determination.

#### Section 5: Strategy Implementation

This section commenced with an open-ended question on how construction firms implement their strategic vision. Respondents were asked to determine the key factors of the strategy implementation process, synergies between these factors, who is responsible for strategy implementation, how do they communicate their strategic decisions, and how do they monitor the performance of the strategy implementation process.

#### Section 6: Alignment between Strategy Formulation and Strategy Implementation

This section started with an open-ended question regarding the extent of alignment between strategic planning at a corporate level and strategy implementation at the project level. Respondents were asked about the extent to which their strategic goals influence projects selection, projects planning, and resources allocation.

#### Section 7: Barriers to Strategy Formulation and Implementation

This group of questions were open-ended questions aiming to reveal barriers construction companies face when setting their strategic goals, as well as implementing their strategy. Moreover, respondents were asked on how they plan to overcome these barriers to ensure the success of the strategic planning and implementation processes.

#### Section 8: Strategic Planning

The last section sought to explore the company's experience with strategic planning, and whether they think strategic planning is important for the future of their businesses. Finally, respondents were provided with the opportunity to raise any issues they considered relevant to the investigated issue.

## 6.5 Time Horizon

Saunders et al. (2009) outlined two horizons for academic research: cross-sectional and longitudinal. Cross-sectional means that a study is undertaken to answer a question within a particular time frame. On the other side, longitudinal studies aim to observe a phenomenon over an extended period. This research inquiry falls under the cross-sectional time horizon since it aims to explore the extent of alignment between strategy formulation and implementation processes at present.

## 6.6 Research Ethics

The ethical validity of the research procedures adopted in this study was carefully considered. Research ethics are defined as the norm of conduct that differentiates between acceptable and unacceptable procedures throughout the stages of data collection, analysis, and dissemination (Shah, 2011). Adherence to ethical principles contributes to the credibility of the research findings (Saunders et al., 2009). The conduct of this study carefully considered the following ethical considerations: integrity, confidentiality, informed consent, and the privacy of research participants (Shah, 2011).

Ethical approval was gained from the research committee in Technological University (TU) Dublin (Appendix F). The committee assessed the process and procedures of data collection and confirmed its ethical validity. Likewise, a confidentiality agreement was signed with the Construction Industry Federation (CIF) (see appendix b) to gain access to the contact details of senior managers of construction contracting firms registered in the federation. Their e-mail addresses were used to undertake the first phase of the research by disseminating an online questionnaire.

It was ensured that the respondents were informed as to the purpose of the study. Their consent was gained through a formal letter of invitation prior to the first research phase. Participants



were given the option to withdraw from the research at any stage. Moreover, the research design ensured the anonymity of the research participants and the confidentiality of the collected data. The identities of the respondents were only known to the researcher and the supervisors.

Before commencing the second phase of research, permission was sought in advance to record each interview. Moreover, interviewees were provided with the interview prompt sheet in advance upon their request. Interviews were transcribed using a professional transcription company, and a confidentiality agreement was signed before forwarding the recordings. Company and manager names were replaced with a letter in the transcripts, and any information which may identify respondents was removed during the analysis.

#### 6.7 Survey Sampling and Administration

According to the CSO (2017), the number of registered firms operating in the construction industry in Ireland exceeds 50,000 firms. Hence, it remains impractical to approach the overall population of construction contracting firms in Ireland due to accessibility and time constraints. Therefore, there is a compelling need to select a sizeable sample that represents the entire population.

Henry (1990) argued that relying on sampling process can improve the accuracy of findings when compared to targeting an entire population. A fewer number of participants means that more time can be spent on designing and piloting the data collection instrument. Likewise, collecting data from fewer cases means that more detailed information can be gathered from participants (Saunders et al., 2009). Proportionally, more time can be devoted to checking the gathered data for accuracy before the analysis phase. Although Henry's argument could pose a threat to the generalisability of findings, the reliance on sampling process remains practical for academic studies targeting large research populations.

Saunders et al. (2009) proposed two main sampling techniques: probability (representative) sampling and non-probability (judgemental sampling). In the first case, the chance of each case being selected from the population is equal. Whereas in the second, there is no specific probability of an individual to be part of the sample (Saunders et al., 2009). Non-probability sampling usually means that the selection process is subjected to specific criteria set by the researcher to answer his research question (Atkins et al., 2008).

Non-probability judgemental sampling technique was deployed in this study to meet the research aim. Saunders et al. (2009) argued that non-probability sample is the most practical technique for exploratory studies. The chosen sample out of the entire population of the construction contracting firms in Ireland were firms registered in both the Construction Industry Register Ireland (CIRI) and Construction Industry Federation (CIF).

The CIF is the Irish construction industry's representative body. It aims to provide construction firms with a broad range of services that assist members in navigating the political, business, economic, and regulatory domestic environment. These services cross the full construction business spectrum and include recruitment and training, legal and industrial relations consultation, as well as engagement with government, statutory and other industry bodies. On the other hand, CIRI is an online register of competent builders, contractors, specialist sub-contractors and tradespersons who undertake to carry out construction works. The CIRI register is officially supported by the Irish government. It is the primary online source used by public and private clients to procure construction services.

Teddlie and Tashakkori (2009) referred to the importance of identifying a specific unit of observation that is observed, measured, or targeted during gathering data about the unit of analysis (i.e. target sample). The unit of observation was defined to be senior managers due to their dominant role in planning and implementing strategy in construction firms (Dansoh, 2005;

Price, 2003). The relevance of the proposed questions to their organisational role can have a positive impact on the validity of the findings (Baruch and Holtom, 2008).

## 6.8 Pilot Study

A pilot test is deemed necessary to test the validity used in the constructs of any designed survey, either the questionnaire or the semi-structured interview (Saunders et al., 2009). Pilot tests also help in assessing the validity and reliability of the data to be collected in the main phase. The observations of construction professionals participating in the pilot phase can minimise the possibility of other respondents facing difficulties in completing the survey or understanding its questions (Hitchcock and Hughes, 1995).

### Phase 1: Quantitative Questionnaire

In May 2018, an online pilot questionnaire was sent out to twelve professionals engaged in the construction industry in Ireland. The population mainly consists of practitioners who are actively working for construction contracting firms based in Ireland. The pilot questionnaire was sent out via email with a link to the online survey portal “Survey Monkey”. It was composed of twenty-eight questions, including four questions asking for their feedback.

The responses of participants were used to refine the questionnaire for the main phase. They advised that the number of questions should be reduced to cut down the length of the questionnaire. Likewise, complex academic terms should be replaced with more simple terms that can be understood by construction professionals. These comments were taken into account; simpler words were used to ease understanding, and the number of questions was reduced to twenty-two.

### Phase 2: Qualitative Interview

Similar to the quantitative phase, the qualitative phase was piloted by interviewing five directors of construction contracting firms in Ireland. Participants were asked by the end of

each interview to evaluate its quality, in terms of length, structure, questions, and simplicity of used terms. Informants provided positive feedback concerning the interview prompt sheet. Several participants indicated that the interview was useful to expand their knowledge about strategic planning and implementation. However, they stressed the importance of using simpler terms that can be easier to understand. This comment was taken into consideration when designing the interview prompt sheet for the main phase.

## 6.9 Data Collection and Analysis Methods

Data were collected in two phases reflecting the adopted mixed methods approach. Ethical considerations, as explained in section 4.6, were taken into account during the processes of data collection and handling to ensure the credibility of the research findings (Robson, 2002). In regard, research credibility refers to the extent to which the study findings accurately answer the research question (Saunders et al., 2009).

Several measures were undertaken to ensure that the fieldwork phase yields valid and reliable research findings which accurately answers the research question. A high degree of structure to the interview questions was introduced to lessen the threat of observer error (Easterby-Smith et al. 2008). Likewise, interviewees were encouraged to provide genuine answers and were informed that their identity will remain anonymous to avoid any participant bias (Saunders et al., 2009). Finally, data were collected from all firm sizes dispersed across various geographical locations in the Republic of Ireland to generate robust and generalisable conclusions (Robson, 2002).

### 6.9.1 Phase 1: Online Questionnaire

The first phase of fieldwork involved a widespread questionnaire disseminated to construction contracting firms registered in both the Construction Industry Federation (CIF) and Construction Industry Register (CIRI) in the Republic of Ireland. The number of firms

registered in both CIF and CIRI was found to be 389 firms. The online questionnaire was sent out to all 389 firms registered in the representative bodies in December 2018 and was left open for eight weeks.

The questionnaire was administered through the online survey facility “Survey Monkey”. Key informants were contacted either through their business email addresses provided by the CIF based on the confidentiality agreement signed with the representative body (see section 6.6). A four-wave approach to data collection was undertaken. Initially, an email was sent to every informant to invite him to participate in the study (see appendix 1). The invitation email outlined the purpose of the study and assured the confidentiality of their responses. Emails were personalised by including the first name of every recipient in an attempt to increase the response rate (Dillman, 2000).

The covering email contained a direct link to the questionnaire, and recipients were provided with another link to use in case they did not wish to participate. This second link was used to ensure that no further correspondence or follow-up emails would be sent to those who did not wish to be involved in the research study. Respondents were informed with the support of the CIF to the research project to raise the rate of response (Dillman, 2000). Finally, on completion of the survey, a “Thank You” page was displayed providing contact details of the research team and asking for potential willingness to participate in the second phase.

The first attempt to administer the questionnaire yielded 80 responses. Two weeks later, a second invitation was sent only to those who had not responded to the earlier correspondence. In the second wave, a further 9 responses were received. A third correspondence was sent two weeks after the second invitation, followed by a final reminder. They generated extra 8 and 5 responses respectively. The ‘repeated questionnaire waves’ process was highly advised by

Wählberg and Poom (2016) to enhance the number of acquired responses post the first attempt of questionnaire administration.

The following table provides an overview of the process of responses collection:

<b>Contact</b>	<b>Number of Responses</b>
First Wave	80
Second Wave	9
Third Wave	8
Final Wave	5
<b>Total Number of Responses</b>	<b>102</b>
<b>Usable Number of Response</b>	<b>84</b>
Sample Size	389
<b>Overall Response Rate</b>	<b>22 per cent</b>

Table 6. 3: Response rate to the questionnaire

The total number of responses received was 102 responses. Out of the 102 responses, 84 responses were found to be usable since they completed a minimum of one-third of the online questionnaire. The differentiation between the total number of responses and usable responses is vital to assure research integrity. Several respondents were deemed non-usable since they failed to provide enough information about themselves or their companies. Non-usable responses can be a source of bias surveys, and their elimination is an important objective of

good survey practice (Fincham, 2008). Therefore, usable responses were used to calculate the response rate to ensure the reliability of the findings (Baruch, 1999). The number of usable responses was limited to 84, which represents 22 per cent response rate.

Although the rate of response is a crucial factor in assessing the value of research findings, there is no academic consensus on what is considered an acceptable response rate (Baruch and Holtom, 2008; Rogelberg and Stanton, 2007). Full response, or 100 per cent response rate, is rarely achieved in the voluntary studies (Rogelberg and Stanton, 2007). However, the primary aim was to reach the highest possible rate of response to support the credibility and generalisability of the findings.

Response rates to e-mail surveys have decreased since the late 1980s; e-mail response rates may only approximate 25 to 30 per cent (Sheehan, 2001). However, email administration was adopted since it is the most efficient and economical method (Petchenik and Watermolen, 2011). Another challenge to achieving a high response rate lies in the selected unit of observation which is limited to managing directors (see section 6.7).

Approaching top managers to obtain data is more likely to yield lower response rates in comparison to approaching non-executive employees (Cycyota and Harrison, 2002). Senior executives are more likely to face “over-surveying”, meaning that they are flooded with questionnaires to answer (Weiner and Dalessio, 2006). As a result, they are less likely to respond to online questionnaires. Likewise, Fenton-O’Creevy (1996) found that senior managers are usually “too busy” with their managerial duties to respond to questionnaires. Therefore, it can be concluded that the 22 per cent response rate achieved in this study is considered an acceptable rate for e-mail survey targeting senior managers. This rate of response is close to that achieved by other studies conducted within the construction management field.

<b>Author</b>	<b>Year</b>	<b>Title</b>	<b>Country</b>	<b>Response Rate</b>
Kale and Arditi	2003	Differentiation, conformity and construction firm performance	USA	21%
Price et al.	2003	Changing strategic management practice within UK construction industry	UK	22%
Cheah et al.	2007	Strategic analysis of large local construction firms in China	China	28%
Chew et al.	2008	Core capability and competitive strategy for construction SMEs in China	China	13%
Kazaz and Ulubeyli	2009	Strategic management practices in Turkish construction firms	Turkey	37%
Pamulu	2010	Strategic management practices in the construction industry: a study of Indonesian enterprises	Indonesia	24%
Murphy	2011	Strategic planning in Irish quantity surveying practices	Ireland	42%
Tan et al.	2012	Competition Environment, Strategy, and Performance in the Hong Kong construction industry	Hong Kong	20%
Li and Ling	2012	Critical strategies for Chinese architectural, engineering and construction firms to achieve profitability	China	28%



Oyewobi	2014	Modelling performance differentials in large construction organisations in South Africa	South Africa	26%
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Table 6. 4: Response rates in similar studies of strategic management in construction

As with many surveys, several people did not respond (Bryman and Bell, 2007). Non-respondents create a probability of “non-response bias” (Tomaskovic-Devey et al., 1994). Non-response bias refers to obtaining data from a non-random group who may have unique interest that distorts the research findings (Schalm and Kelloway, 2001). However, the respondents to this survey were characterised with noticeable representativeness. Irish construction firms of all sizes, ownership structures, locations, and workloads within the various construction sectors were considerably represented in the responsive sample. This representativeness is more important than response rate in survey research since it ensures that the findings are credible, generalizable, and free from non-response bias (Baruch and Holtom, 2008). Therefore, non-response bias can be considered negligible in this study due to the representativeness of the findings.

Quantitative data was analysed using descriptive statistical analysis which provides valuable information about the nature of a specific group of individuals or firms (Best and Kahn, 2003). Descriptive analysis of data limits generalisations to the group of firms under observation. No conclusions beyond this group can be assumed. However, descriptive analysis was deemed relevant to this study due to the unique nature of the Irish construction industry.

The structure of the construction industry in Ireland comprises numerous small firms with a proportionately small number of large firms (Murphy, 2011). Larger firms are all members of the CIF, the industry’s representative body. The study in hand places considerable emphasis

on contracting firms registered in CIF, and its registrar CIRI, due to their relatively high contribution to the economy and likelihood of engaging in strategic planning. All registered firms were included in the study sample to eliminate the need for developing generalisations about firms laying outside the sample. Therefore, the application of inferential statistical analysis (e.g. Analysis of variance, correlational analysis) to generalise findings across all construction contracting firms in Ireland was deemed unnecessary.

#### 6.9.2 Phase 2: Semi-Structured Interviews

Data was collected for this phase of research through semi-structured interviews. Questions were prepared in advance of the interviews; however, the responses of participants yielded additional questions to gain in-depth insights into the investigated issues. The final question in the phase one survey sought confirmation of willingness to participate in the second, qualitative phase. Those who responded positively to this question were categorized into firm size and participants from firms of various sizes were invited to engage in the semi-structured interviews. Phase two participants were provided with a succinct interview prompt sheet that summarises the topics under investigation. However, they were not provided with the interview questions either in advance of or during the interview.

The maximum number of participants was sought to participate in this phase to reach new and deep insights. The literature does not provide precise figures regarding the sufficient number of participants in exploratory studies (Saunders et al., 2009). However, Guest et al. (2006) posited that for research projects that aim to understand commonalities within a homogenous group, 12 in-depth interviews should suffice. The number of conducted interviews extended to 16; however, only 12 were analysed as they fulfilled the criteria set by the researcher (i.e. the role of the participant in the company and length of interview). The remaining 4 interviews were excluded since they were either very short to provide valuable information or the participant was found to be not holding a senior position in his company.

The process of data collection commenced with contacting individual participants, by e-mail, to outline the scope and purpose of the study, as well as requesting their participation in the study. Participants were also asked to determine a date, time, and location that best suits them to conduct the interviews. Interviews were either conducted in their offices, public places, or the university campus. Permission was sought at the outset to record the interviews for transcription purposes, and it was always granted.

Interviews were on average 40 minutes in duration, and recordings were transcribed by a professional transcription company with experience in transcription for doctoral research. A confidentiality agreement was signed in advance of forwarding the recordings for transcription. For validity purposes, transcripts were returned to informants to confirm that their responses were accurate before analysis being undertaken (Murphy, 2011). However, there were no significant amendments required.

The analysis of qualitative data requires the selection of a data analysis method and then applying it to the primary data gathered during fieldwork. A review of the recognised analysis methods was conducted to inform the best possible choice in light of the research aim and objectives. The following table provides a comprehensive review of the seven most common methods of qualitative data analysis. It offers a brief description of each method and describes a rationale for method selection/rejection in the context of this academic investigation.

<b>Method</b>	<b>Description</b>	<b>Rationale for selecting/discounting method</b>
Grounded Theory	Grounded theory is a systematic method that involves the discovery of theory through the analysis of	Grounded theory was dismissed as a possible method for data analysis since this research inquiry involved a

	<p>data. (Martin and Turner, 1986). It requires the analysis to be directed towards theory development in a 'bottom-up' approach (Holloway and Todres, 2003). In grounded theory, data collection starts without the formation of an initial theoretical framework. Moreover, a theory is developed from data generated through a series of observations. These data lead to the generation of predictions which are then tested in further observations that may confirm, or otherwise, the predictions (Saunders et al., 2009).</p>	<p>theoretical framework prior to conducting fieldwork. The gap between strategic planning and strategy implementation was defined as a critical issue facing the success of strategic management in construction firms, and dynamics capabilities theory was the lens applied to explore the strategic management process in the study sample. Moreover, grounded theory requires the researcher to re-enter the field after analysing the first round of data. Further interviews should be conducted with the same participants to address questions arising from previous analysis; a process known as 'data saturation'. As this study recruited senior participants, it would be unlikely to gain access again for second interviews. Therefore, grounded theory was ruled out as an appropriate data analysis method for this study.</p>
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Content Analysis	Content analysis refers to the analysis of various types of data, including writing, images, recordings and cultural artefacts. It often provides (frequency) counts that allow for quantitative analyses of initially qualitative data (Ryan and Bernard, 2000).	Content analysis is often used in studies where the unit of analysis tends to be a word or phrase. However, the unit of analysis and observation are people and not published content. Therefore, content analysis was not considered to be the best option for this study.
Discourse Analysis	Discourse analysis covers a number of approaches to analyse written, vocal, sign language use, or any significant signs or symbols.	This study is not examining vocal, signs, or language as means of constructing meanings. Thus, discourse analysis was not considered to be the optimum choice of analysis method for this study.
Narrative Analysis	Narrative analysis uses field texts; such as stories, autobiography, journals, field notes, letters, conversations, interviews, family stories, photographs (and other artefacts), and life experience, as the units of analysis to research and understand the way people create	This study aims to explore the lived experiences and beliefs of participants on the formulation and implementation of strategy in their business firms. The study is less concerned with the telling of the story, but more focused on the story told. Therefore, narrative analysis was

	meaning in their lives as narratives (Clandinin and Connelly, 2000).	deemed not suitable for the aim of this academic investigation.
Case Study	Case study is a method which focuses on complex situations while taking the context into account (Keen and Packwood, 1995), thus capturing the holistic and meaningful characteristics of events.	This study will not focus on a small number of individual cases but the broader experiences of key informants concerning the strategic management process as a whole that are context and time-bound. Therefore, the case study approach was not considered ideal for this research project.
Thematic Analysis	Thematic analysis is the most commonly used method of analysis in qualitative research (Guest et al., 2011). It is used for identifying, analysing, and reporting themes within data (Braun and Clarke, 2006). The method of analysis is driven by both theoretical assumptions and the research question. Thematic analysis provides a flexible method of data analysis and allows for researchers with various methodological	Thematic analysis is sometimes over-reliant on the presentation of themes, supported by participant quotes, as the primary form of analysis rather than as an outcome of rigorous data analysis processes.

	backgrounds to engage in this type of analysis.	
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Table 6. 5: Methods of Qualitative Data Analysis

The above table explained the rationale behind the selection of thematic analysis in the second phase of fieldwork. Thematic analysis is a qualitative approach use to identify, analyse, and report themes within data (Braun and Clarke, 2006). This approach seeks to analytically examine narrative materials from real-life stories (Sparker, 2005). It is deemed an optimal method to answer research questions relating to people (Ayres, 2007). Hence, it is considered highly relevant to answering the research question of this study relating to the people-oriented strategy formulation and implementation processes.

If conducting exploratory work in an area where not much is known, thematic analysis is suitable for identifying common trends within data (Green and Thorogood, 2004). It provides a rich and detailed, yet complex, account of the data gathered from a set of interviews (Braun and Clarke, 2006). The aim of thematic analysis is analytically examining narrative materials from life stories by breaking the text into relatively small units (Sparker, 2005). Interview transcripts are broken down into discrete ‘units’ then grouped into categories relating to strategic planning characteristics, strategic implementation factors, business environment, strategic choices, barriers to strategizing, and alignment between strategy formulation and implementation (Appendix E).

Number	Theme	Definition
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1	General company information	This node contains general information belonging to the participant and the company.
2	Choices	This node contains the strategic choice, strategic type, and approach to strategy formulation of the construction firm.
3	Strategic planning characteristics	This node contains the characteristics of strategic planning.
4	Strategy implementation factors	This node contains the components and characteristics of the strategy implementation process.
5	Business environment	This node describes the business environment in Ireland and its impact on the construction industry and contracting firms.
6	Barriers to strategy formulation and implementation	This node contains barriers to strategy formulation and implementation.
7	Alignment between strategy formulation and implementation	This node describes the extent of alignment between strategy and individual construction projects.



Table 6. 6: Coding categories for interviews

The categories arising from the thematic analysis method generally take two different forms (Lincoln and Guba, 1985). First, there are those categories which arise from the personal experiences of the research participants. Secondly, there are categories which the researcher identifies as important to explore issues of relevance to strategic decision making in construction contracting firms. The purpose of the first categories is to explore the own experiences and world view of participants, while the second categories aim to develop theoretical insights by comparing and contrasting themes that lead to both descriptive and exploratory findings (Lincoln and Guba, 1985). Extensive efforts were made to eliminate the possibility of any bias associated with data interpretation. Transcribed data were read several times, and initial ideas were highlighted to become familiarised with the data. At the next stage, themes and subthemes were identified, the thematic map was created, and data was coded into relevant themes. Finally, categories underwent content and definition changes as units and incidents are compared, and as the understanding of the relationship between categories is developed throughout the analytical process.

Relationships between categories are derived from the data itself by systematically searching through data to identify patterns to describe the phenomenon under investigation. The thematic analysis approach, as applied, offers the means whereby a researcher can analyse these articulated perspectives to be integrated into a framework that seeks to explain the social process under study (Braun and Clarke, 2006). Therefore, the outcomes of the thematic analysis process can support the development of a framework for integrating strategic planning and strategy implementation in construction contracting firms in Ireland.

The thematic analysis process undertaken in this phase has followed the six-step approach articulated by Braun and Clarke (2006) due to its clarity and flexibility.

Number	Phase	Description
1	Familiarising yourself with your data	Transcribing data, reading the data and noting down initial ideas.
2	Generating initial codes	Coding interesting features of the data in a systematic way across the entire data set, collecting data relevant to each code. These codes were allocated clear labels and definitions to serve as 3rules for inclusion (Maykut and Morehouse, 1994).
3	Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4	Reviewing potential themes	ongoing analysis to refine the specifics of each theme to consolidate codes from the previous three phases into abstract, philosophical, and literature-based codes in order to create a final framework of themes for reporting purposes.
5	Defining and naming themes	Writing analytical memos against the higher-level themes to accurately summarise the content of each category and its codes and propose empirical findings against these categories.
6	Producing the report	Synthesising analytical memos into a coherent, cohesive and well-supported findings report. Finally, the final phase results in report completion, including the findings and discussion elements of the research project.

Table 6. 7: A 6-steps approach to data analysis (Braun and Clarke, 2006)

The steps explained above guided the transcription, coding, analysis, and reporting of the gathered qualitative data. The thematic analysis process was undertaken with the support of NVivo software for data management. King (2004) posited that NVivo is invaluable in helping the researcher index segments of text to individual themes, linking research notes to coding, carrying out complex search and retrieve operations, and aiding the researcher in examining possible relationships between the themes. Therefore, NVivo software was used to facilitate the management of the relatively sizeable qualitative dataset acquired through the second phase of fieldwork.

#### 6.10 Summary

The pragmatic research paradigm was espoused for this exploratory study. The combination of observable facts and subjective meanings can provide acceptable knowledge about the extent and barriers of the integration of strategic planning and strategy implementation in construction contracting firms in Ireland. Mixed research methods, quantitative and qualitative, were deployed to address the research objectives. The first phase involved a survey questionnaire administered to senior managers in Irish contracting firms, while the second research phase consisted of a semi-structured interview.

Both phases were piloted prior to the start of the main phase to test the validity of the constructs used in the questionnaire and interview prompt sheet. The feedback collected from the pilot phase was highly considered during the design of the primary phase. Questions of the online questionnaire were refined to improve the response rate and increase the accuracy of the gathered data.

## Chapter 7. Findings and Analysis

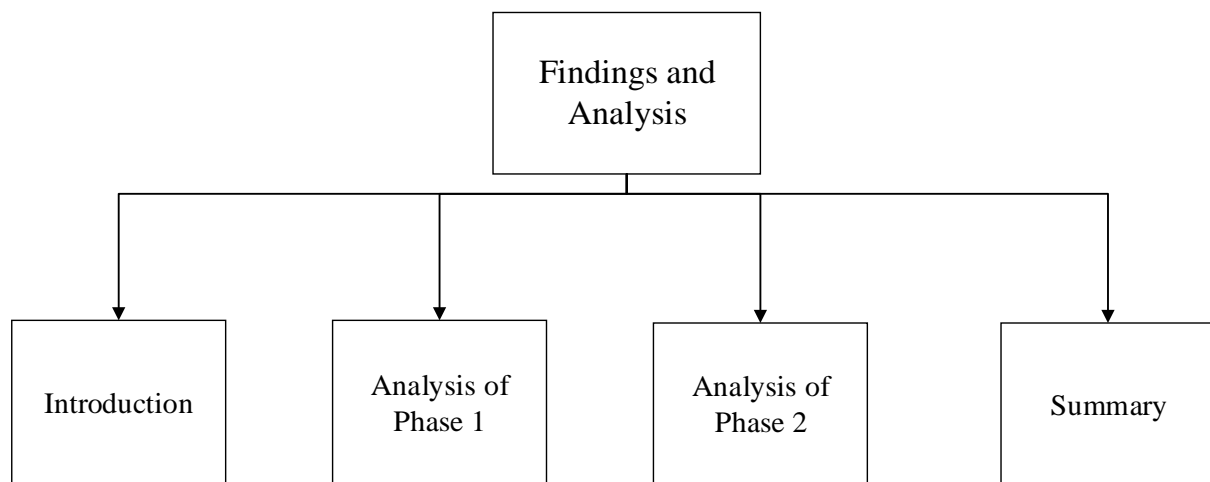


Figure 7. 1: Map of chapter 7

### 7.1 Introduction

The previous sections outlined the methods by which fieldwork was undertaken to accomplish the research objectives. Mixed methods were employed to answer the research question and address the project objectives. The following sections present the findings from the two phases of fieldwork. The first section of this chapter presents a detailed analysis of the research findings of the first phase, widespread questionnaire. Moreover, the second section provides a thematic analysis for the semi-structured interviews. Eventually, the last section of the chapter provides a summary of the key findings of the combined approaches to the research.

### 7.2 Analysis of Phase 1: Quantitative Data

Percentile and ratio analysis were used to analyse the background information of the respondents (Krishnaswamy and Ranganathan, 2006). The firms of respondents were grouped according to their size, strategic type, and experience with strategic planning to explore correlations and dissimilarities. Finally, the results are interpreted in the light of past studies. Besides, the implications of the findings on the Irish construction industry are demonstrated.

### 7.2.1 General Profile of the Respondents

	<b>Frequency</b>	<b>% of Valid responses</b>
<b>Current Position of Respondent</b>		
Managing Director	49	59
Director	21	25
Associate Director	1	1
Project Manager	5	6
Other	7	9
<b>Ownership Structure</b>		
Sole Proprietorship	4	5
Partnership	5	6
Private Limited Liability Company	59	71
Public Limited Liability Company	11	13
Subsidiary of a Multinational Construction Group	4	5
Other	0	0
<b>Number of Full-time Employees (Currently)</b>		
1 to 9	31	37
10 to 49	34	41
50 to 250	13	16

More than 250	5	6
<b>Number of Full-time Employees (in 2007 construction peak)</b>		
1 to 9	16	20
10 to 49	33	41
50 to 250	23	29
More than 250	8	10

Table 7. 1: Demographics of participating firms

The data presented in table 7.1 indicates that 85 per cent of participants hold senior managerial positions in their firms. Several scholars confirmed the considerable involvement of senior managers in the formulation and implementation of strategy within construction firms (Dansoh, 2005; Price, 2003). Therefore, managing directors were primarily targeted during both phases of fieldwork due to their principal role in strategic decision-making (Kealy, 2013; Porter, 1996). The findings demonstrate that the majority of respondents satisfied this criterion.

Most of participating companies were private limited liability companies. Moreover, a modest number of firms were found to be of public limited liability companies, partnership, subsidiaries of multinational groups, and sole proprietorships. The following table explains the meaning of each company type according to the definitions of the Company Registration Office Ireland.

<b>Company Type</b>	<b>Definition</b>
Private limited liability company	The members' liability, if the company is wound up, is limited to the capital initially invested in the company.
Public limited liability company	The legal designation of a limited liability company that has offered shares to the general public and has limited liability. A company's stock is offered to the general public and can be acquired by anyone, either privately, during an initial public offering or through trades on the stock market.
Partnership	A legal form of business operation between two or more individuals who share management and profits.
Subsidiary of a multinational group	A company that is owned or controlled by another company, which is called the parent company or holding company. Subsidiaries are separate, distinct legal entities for taxation, regulation, and liability purposes.
Sole proprietorship	A business that legally has no separate existence from its owner. Income and losses are taxed on the individual's income tax return.

Table 7. 2: Definitions of ownership structures (CRO, 2019)

Dansoh (2005) observed the presence of a robust correlation between company type and engagement in strategic planning within Ghanaian construction contracting firms. Sole proprietorships, partnerships, and private limited liability companies rarely engage in strategic

planning. Otherwise, these firms limit the scope of planning to individual projects due to lack of knowledge about the benefits and applications of strategic planning.

On the other hand, subsidiaries of multinational groups are more likely to engage in strategic planning since they are obligated to follow a strategic plan designed by expatriate firms (Dansoh, 2005). Likewise, public limited liability companies engage in strategic planning to maintain business survival on the long-term and improve their stock value on the short one (Desai, 2000). To that end, the following sections seek to prove, or disprove, the presence of a relationship between company type and engagement in strategic planning within an Irish construction context (see section 7.2.8).

Regarding firm size, most of the companies engaged in this study are either micro or small. Medium firms represented 16 per cent of the study sample. Finally, 6 per cent of the firms are large meaning that they employ more than 250 full-time staff. Given that 99 per cent of construction firms in Ireland are either micro or small (CSO, 2017), the predominance of micro and small firms in the study sample reflects the nature of the market structure of the Irish construction industry. In regard, the firm size was determined according to the criteria set by the European Commission; it was based on the number of full-time employees rather than turnover or net profit.



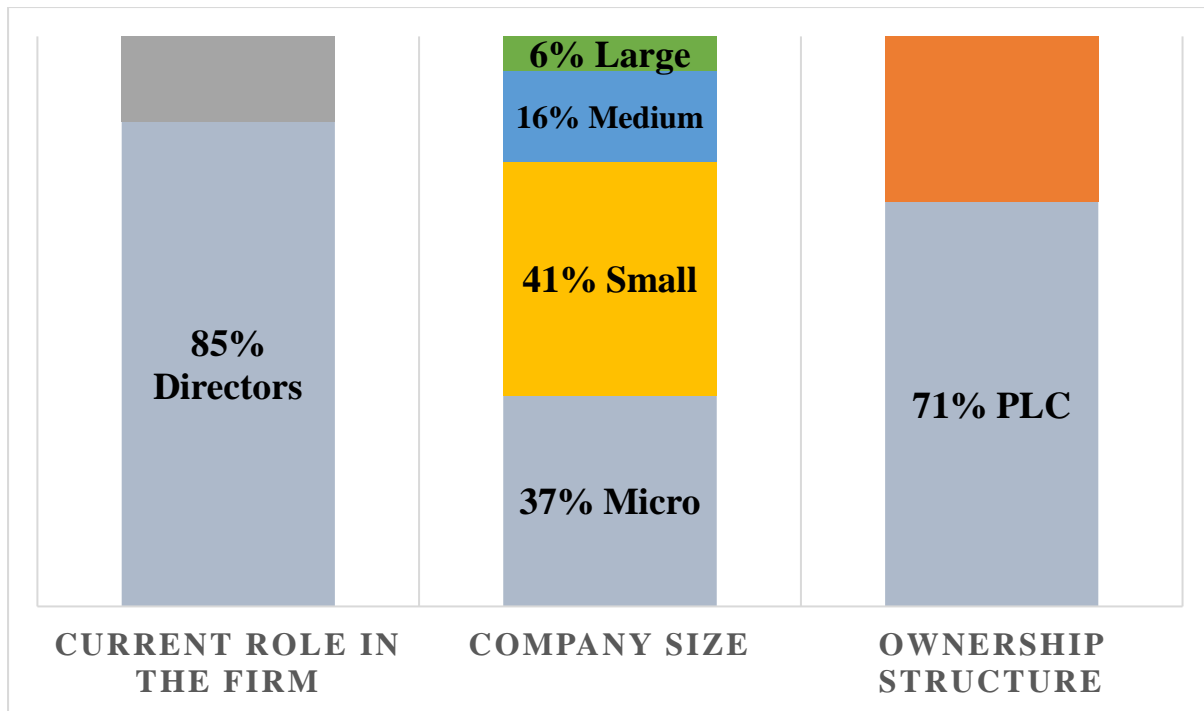


Figure 7. 2: General profile of the questionnaire respondents

Participants confirmed that the size of their firms changed over the last decade. During the construction boom before 2007, the percentage of micro firms was limited to 20 per cent in comparison to 37 per cent now. Likewise, the percentage of medium firms has declined from 29 per cent in 2007 to 16 per cent now. Finally, large firms represented 10 per cent in comparison to 6 per cent at present. Therefore, it is evident from the gathered data that many contracting firms have downsized over the last ten years – there is an increase in the number of micro firms in comparison to a reduction in the number of medium and large firms.

This finding is consistent with the observations of Murphy (2011) on construction service firms in Ireland. Nevertheless, the inclination towards downsizing found by Murphy (2011) was influenced by the deep economic recession in 2007. Irish construction contracting firms participating in this phase have not clarified the reasons behind their tendency to downsize the size of their firms. Therefore, this issue will be thoroughly addressed in the second phase of fieldwork to identify the reasons for this phenomenon (see section 7.3.2).

The proportion of work currently being undertaken within the main four construction sectors is illustrated in the figure below:

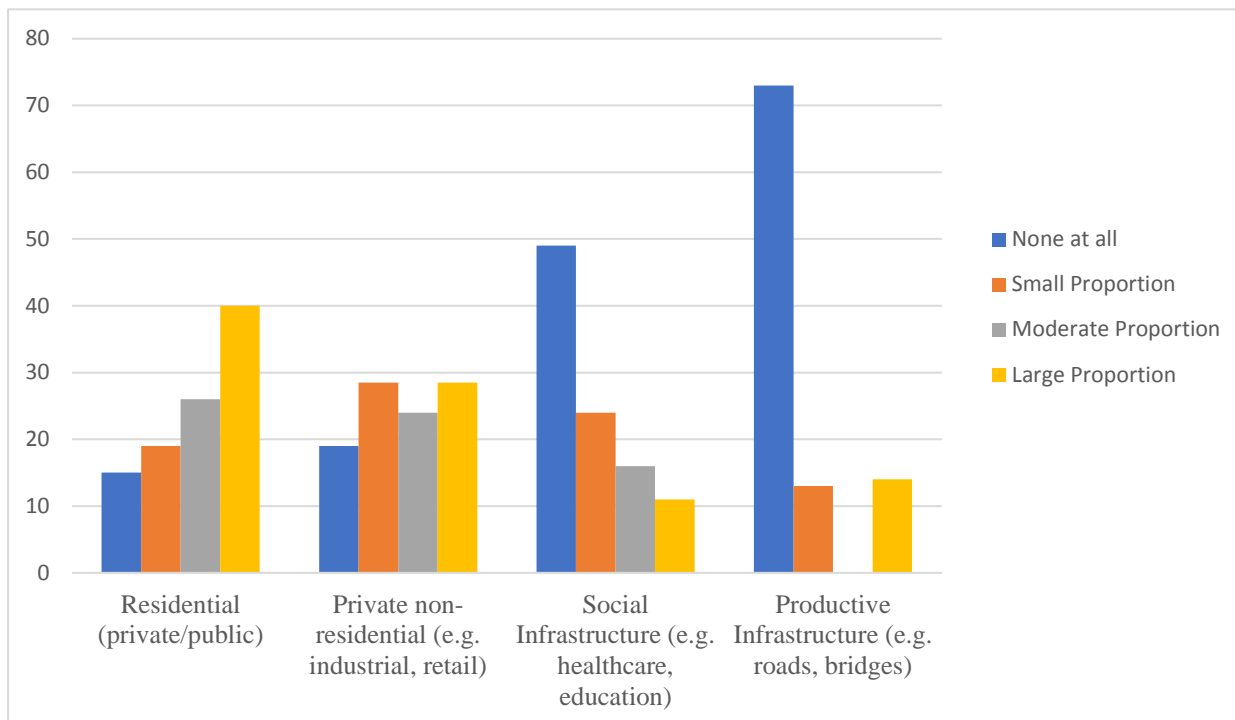


Figure 7. 3: Workload currently being undertaken by contracting firms

The results revealed that the residential sector is the primary sector of emphasis for most contracting firms under investigation, followed by the private non-residential sector (e.g. industrial, retail projects). The housing shortage in Ireland and increasing demand for housing projects can justify the significant emphasis placed on residential projects by Irish contractors. The considerable supply of public and private residential projects in Ireland have diverted contractors of all sizes towards focusing on this construction sector.

Productive infrastructure projects tend to be undertaken by a minor portion of the study sample. Infrastructure projects are large-scale engineering facilities providing essential public services for social production and economic development, such as hydropower projects, high-speed railways, gas pipeline projects, and long-span bridges (Wu et al., 2018). These projects are

characterised with comprising numerous unique and interdependent elements (Dunoviü, 2014). They are usually managed in the context of very complex operations, uncertainties, and ambiguities surrounding these projects (van Marrewijk et al. 2008). Likewise, infrastructure projects usually require a tremendous amount of capital investments. Moreover, the procurement process of infrastructure projects usually involves numerous restrictions on construction firms willing to tender for these public projects (Wu et al., 2018). Therefore, productive infrastructure projects are only undertaken by a minor percentage of firms due to the unique organisational, technical, financial, and legal competences required by contractors to handle the complexities involved in these projects.

A robust relationship between firm size and workload undertaken by construction firms was found through the gathered data. Micro and small firms are more likely to focus their endeavours on undertaking residential and commercial projects. They tend to avoid social and productive infrastructure projects due to the complexity and capital intensity of these projects. Infrastructure projects are usually undertaken by medium and large firms. Likewise, larger firms are more likely to diversify their operations to cover all construction sectors instead of focusing on a specific market segment.

#### 7.2.2 Strategic Planning Characteristics

The strategic planning characteristics is the primary area of consideration and analysis in this research inquiry. Planning characteristics include the strategic type, adopted approach to strategy formulation, and the main dimensions of the strategic planning process in Irish contracting firms. These strategic planning dimensions are listed as following: formality, comprehensiveness, participation and flow, planning tools, and plan horizon.

#### 7.2.2.1 Strategic Type

The first question was designed to explore the strategic type of Irish contractors. Theories of strategic typologies is an important research area in strategic management literature since it illuminates the competitive identity of business firms. The leading contributions in this context are: Miles and Snow's (1978) strategic types (prospectors, analysers, defenders, and reactors); Porter's (1980) set of 'generic' strategies (cost leadership, differentiation, and focus); Miller's (1990) high performance 'gestalts' (craftsman, builder, pioneer, and salesman); and Treacy and Wiersema's (1995) three strategic types (operational excellence, product leadership, and customer intimacy) (Anwar and Hasnu, 2016).

The typology of Miles and Snow (1978) is one of the most popular and frequently used approaches in examining organisational strategies (Kearns, 2005; Parnell et al., 2015; Rogers and Bamford, 2002; Zahra and Pearce, 1990). Though initially developed for manufacturing firms, the Miles and Snow typology has been applied to services and construction industries as well (Manion and Cherian, 2009; Murphy, 2011). The strength of the typology lies in accurately reflecting a complex set of environmental and organisational dimensions, such as product/market entry behaviour, competitive attitude, attitude to innovation, organisational structure, and management characteristics. Therefore, this question was designed based on Miles and Snow typology, which divides business firms into four major strategic groups: prospectors, analysers, defenders, and reactors (see section 3.3.2).

<b>Answer Choices</b>	<b>Response %</b>
Prospector: we continually innovate and seek new market opportunities.	14
Analysers: we carefully analyse emerging trends and adopt only those which have proven potential.	23
Defender: maintaining our current market position is of primary importance.	37

Reactor: our decisions are based mainly on responding to circumstances as they arise.	26
<b>Total</b>	100

Table 7. 3: Strategic types of construction contracting firms

The findings demonstrated that the most significant percentage of contracting firms in Ireland are defenders; their primary aim is surviving by defending their current market share. As described by one of the respondents, the inherent uncertainty in the industry and tight profit margin drive senior managers towards concentrating their efforts on cost control and operational process development rather than entering new markets. “It is still about survival in an ever-changing market that is still recovering from the recession. Margins are very tight at max 3 per cent.” – Firm 63. Therefore, the rapid, unprecedented, changes associated with the construction industry and Irish economy drive firms to prioritise business survival over turnover growth.

The second-largest percentage was found to be reactors, with 26 per cent. Their scope is limited to reacting to external changes as they arise. They devote limited efforts to long-term planning in order to forecast changes in the external environment and anticipate the impact of these changes on the construction industry. Miles and Snow (1978) and Parnell et al. (2015) described reactors as firms that usually do not have an established strategic vision. They tend not to undertake any pre-emptive actions in response to forthcoming market changes. Brunk (2003) found that reactors usually perform below the industry mean since their response to environmental changes is usually slow. The dangers imposed by environmental uncertainty and market cyclicity on the survival of contracting firms is pronounced in firms described as reactors (Anwar and Hasnu, 2016). Hence, it is alerting to discover that 26 per cent of Irish

contracting firms are categorised as reactors; and therefore, they do not have any strategic vision and vulnerable to business failure as a result of any future economic downturn.

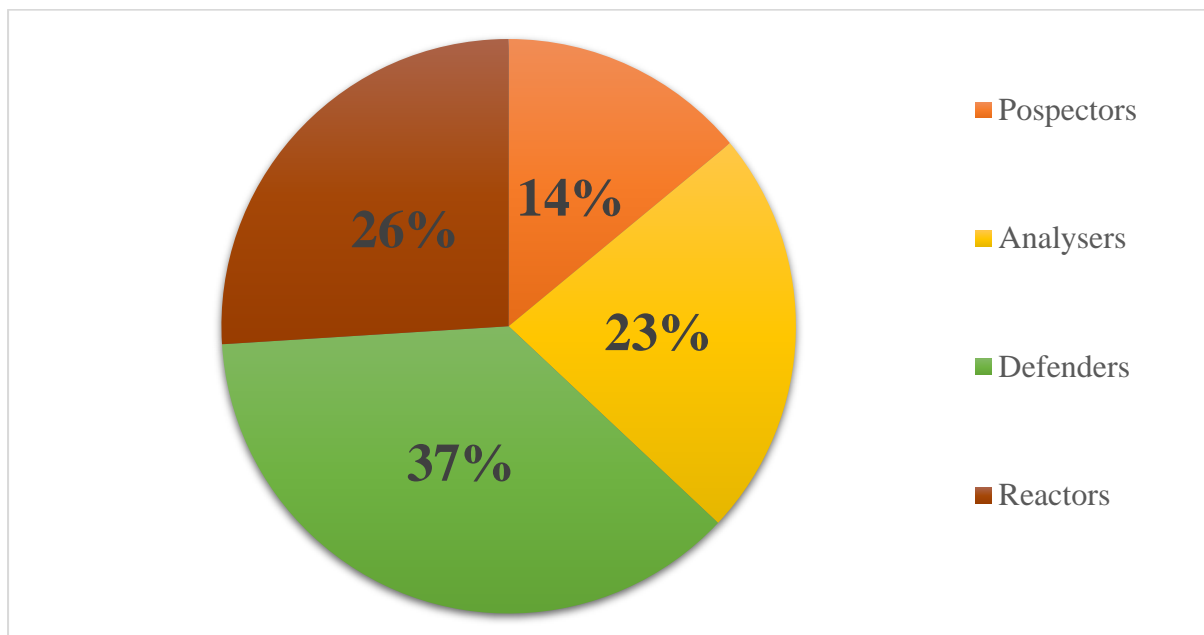


Figure 7. 4: Strategic type of contracting firms

Figure 7.4 revealed that the third group of firms was found to be Analysers, with 23 per cent. Analysers tend to pursue innovation and growth with caution (Parnell et al., 2015). They aim to outperform competitors based on quality enhancement. Analysers rely on extensive analyses of internal and external factors to determine an optimal mode of operation (e.g. growth, stability, and diversification) and common trends to be adopted. The extent to which analysers actively gather and analyse external information to excel in the market will be discovered in the following sections (see section 7.2.7).

The smallest group of firms was found to be Prospectors, forming 14 per cent of responses. Prospectors usually focus on innovation, diversification of offerings, and entering new markets (Parnell et al., 2015). Tan et al. (2006) described prospectors in the construction industry as firms that regularly seek opportunities in foreign markets and usually pioneers of innovative

ideas. For example, residential projects of prospectors are usually characterised with newer designs, more aggressive promotions, and better services.

In summary, it was found that a little number of firms, usually large ones, tend to drive change within the construction industry, while others follow them. A considerable number of firms place survival as an overriding priority due to the inherent cyclicity and uncertainty of the Irish construction industry. Nevertheless, pursuing survival or continuous innovation demands a systematic assessment of economic and market variables. The extent to which Irish contracting firms gather external information will be explored in the following sections to assess the strategic planning competence of participating firms (see section 7.2.2.3). Another important conclusion is the modest emphasis placed by 26 per cent of firms on strategic planning. These firms need technical and financial support to develop strategic plans that secure their market position and maintain their business survival. In regard, the next section seeks to reveal how Irish firms develop their strategic plans.

#### 7.2.2.2 Approach to Strategy Formulation

This question was designed according to the classification of Mintzberg et al. (1998) for the different strategic planning theories based on their extensive study for the vast body of literature on strategic planning. Planning approaches were classified to planned approach, emergent approach, a combination between planned and emergent approaches (planned-emergent), and resource-based approach (see section 3.2.2).

Answer Choices	Response %
Planned: the business environment is analysed, and future changes are forecasted to plan our long-term objectives.	13
Emergent: our long-term objectives are not planned; they emerge over time in response to opportunities and challenges.	35

Planned-Emergent: we have planned objectives; however, they are regularly updated in response to arising opportunities and threats.	37
Resource-based view: our internal resources and capabilities drive our company's long-term objectives regardless of market changes.	15
<b>Total</b>	100

Table 7. 4: Strategic planning approach of construction contracting firms

The approach to forming strategy in construction contracting firms in Ireland was found to be dominated by planned-emergent and emergent approaches. As stated by several participants in the comments, environmental uncertainty makes it impractical to plan for extended intervals. “long-term strategic planning is not happening as we are still emerging from the recession and there are no proper steady market conditions to analyse and to position ourselves in.” – Firm 63. Therefore, strategy either evolves in response to the changing and uncontrollable circumstances in the business environment, or strategy is planned then systematically updated following regular market changes.

The adoption of a planned-emergent or emergent approach to strategy formulation demands continuous assessment of market dynamics to develop/amend strategic plans according to environmental changes. Systematic gathering and analysis of external information (e.g. industry, economy, competitors) is fundamental to develop a strategic plan that fits with the prevalent business environment. Therefore, exploring the extent of gathering external information prior to developing strategic planning is a key concern for the study in hand. This issue will be strictly observed in the following section due to its direct impact on the success of adopting a planned-emergent approach to strategic planning.



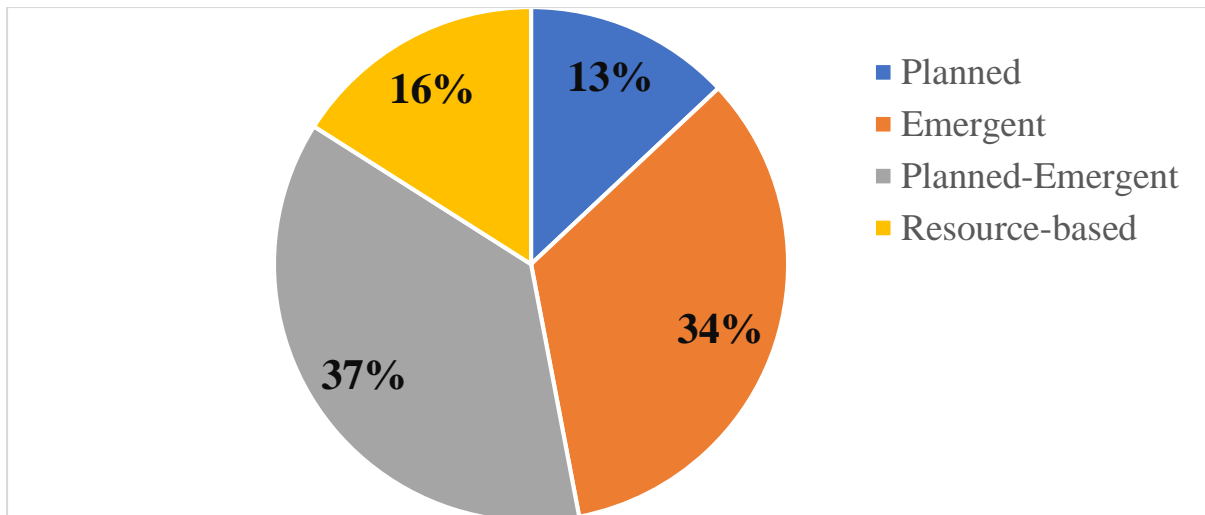


Figure 7. 5: Strategic planning approach of contracting firms

It was found that a small percentage of firms, 16 per cent, adopt a resource-based approach to strategy formulation. Their strategies are based on their possessed resources and capabilities regardless of market changes. Phua (2006), Chew et al. (2008), Li and Ling (2012) discovered that the resource-based view is the predominant theory for strategy formulation amongst construction firms across several countries (Phua, 2006; Chew et al. 2008; Li and Ling; 2012). However, it was not the case in Ireland since only a modest number of firms rely on the acquisition of exceptional resources to surpass competitors. Therefore, it can be concluded that resources acquisition and exploitation are of secondary importance when compared to aligning business goals with arising opportunities and challenges.

Resources acquisition and updating business goals in response to environmental changes require comprehensive gathering and analysis of internal/external information. Comprehensiveness is a primary dimension of strategic planning along with formality, participation and flow, use of planning tools, and plan horizon (Murphy, 2011). These characteristics are to be explored in the following section.

### 7.2.2.3 Strategic Planning Process Dimensions

This question sought to explore the characteristics of strategic decision-making in Irish contracting firms. Respondents were asked to indicate the extent of agreement or disagreement with a number of statements regarding the characteristics of strategic decision-making in their firms. The following figure provides results in this regard.

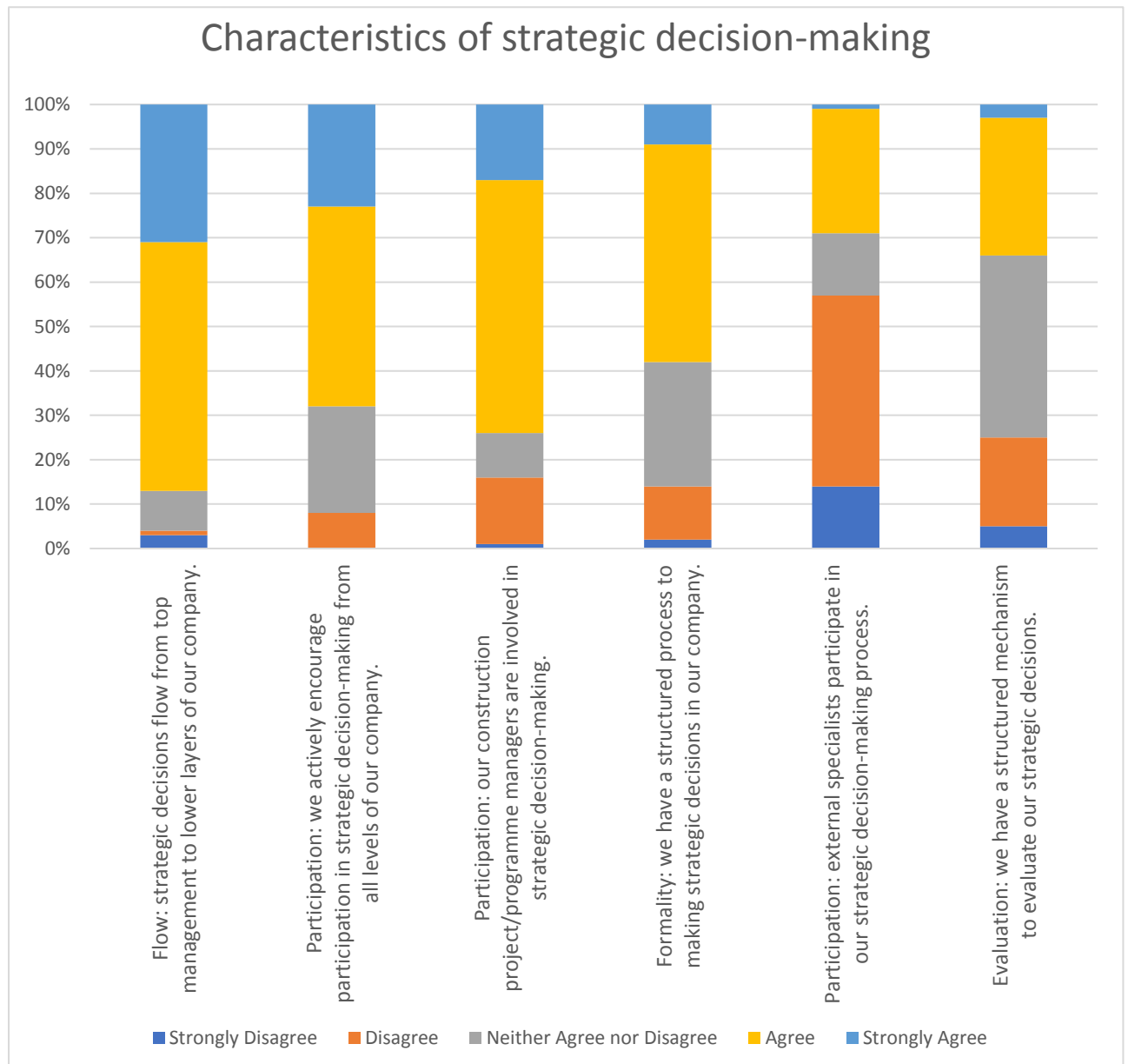


Figure 7. 6: Characteristics of strategic decision-making in construction contracting firms

The predominance of the top-down flow of strategic initiatives among 87 per cent of Irish contracting firms is consistent with the findings of Dansoh (2005) and Price (2003) among construction contracting firms in Europe and Africa. Despite the contemporary shift in other industries towards bottom-up flow (Yi et al., 2017), contracting firms rely on top managers to initiate strategic plans regularly, then communicating these plans to lower hierarchical levels.

Although senior managers hold the responsibility of initiating strategic plans, 74 per cent confirmed that they encourage the participation of project/construction managers, as well as other employees, in the strategic planning process. The engagement of project managers in strategic planning is crucial due to their direct responsibility for implementing a strategy on a project basis and regular interaction with clients/suppliers. Strategic plans in Irish contracting firms are likely to be leveraged with the valuable inputs of project managers. However, this finding was reported by senior managers rather than project/construction managers since seniors are the sole unit of observation. Therefore, validating the extent to which project/construction managers are actively engaged in strategic planning demands a further research inquiry that targets them.

Despite the considerable participation from all levels in planning, 14 per cent of participants confirmed that they undertake strategic decisions in an ad-hoc manner through their principals. They do not have a systematic process and procedures to generate and record strategic decisions. Likewise, 28 per cent of participants neither agreed nor disagreed with the presence of a formal process to undertaking strategic decisions. A formal approach to strategic planning is important in predicting and analysing any shifts in market forces that can have an impact on a construction firm (Brinckmann et al., 2010). Although an ad-hoc approach may prove effective, the achieved success is likely to be short-lived (Gębczyńska, 2016). Therefore, the

above finding refers to an imperfection in the characteristics of the strategic planning process across a considerable number of Irish contracting firms.

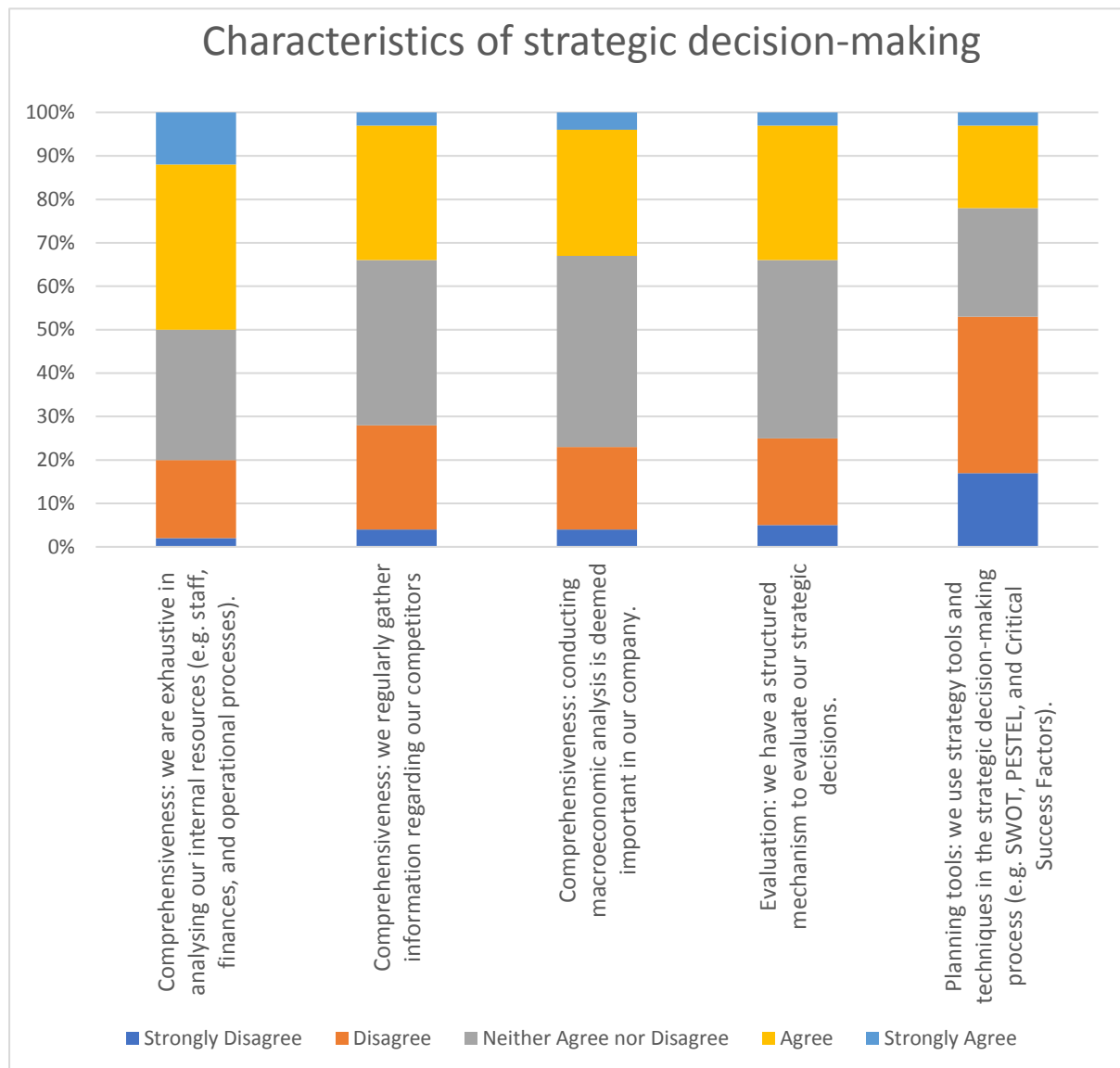


Figure 7. 7: Characteristics of strategic decision-making in construction contracting firms

The continued success of strategic planning in construction firms demands the generation of strategic decisions formally through: systematic gathering and analysis of data, incorporation of internal and external stakeholders, evaluation of several possible solutions, and finally determining the most effective strategic decision (Dansoh, 2005). Hence, formal strategic planning supports the comprehensive gathering of internal and external data to inform strategic

decisions. However, it was found that a modest emphasis is placed on gathering and analysing information about internal resources, competitors, and economic factors.

According to the above figure, only 50 per cent of participants agreed that they gather information regarding their resources, 34 per cent confirmed that they gather information about competitors, and 33 per cent agreed on the collection of information concerning the economy before informing strategic decisions. The limited attention devoted to information comprehensiveness stands as a barrier to achieving a 'strategic fit' between internal capabilities and market opportunities/challenges. As a result, there is a high likelihood that their strategic plans do not accurately reflect the prevalent changes in the surrounding environment. This issue remains a severe flaw in the strategic planning process across a large number of construction contractors in Ireland.

A consequence of informal strategic planning, modest comprehensiveness, and limited awareness with the formulation of strategic plans lies in the modest use of planning tools. A modest number of firms, 24 per cent, confirmed the reliance on planning tools and techniques to gather information, analyse resources, examine competitors, evaluate economic changes, and facilitate strategic planning. The little focus devoted to the utilisation of planning tools in Irish construction is expected to have adverse effects on the outcomes of the strategic planning in Irish construction firms (Murphy, 2011).

#### 7.2.2.4 Strategic Planning Documentation

Another consequence of the prevalence of informal strategic planning lies in the small number of firms that have a document explaining their strategic plan. Brinckmann et al. (2010) posited that the documentation of a strategic plan could ensure the explicit inclusion of strategic planning on the corporate agenda and facilitate the communication of a firm's strategic goals

with middle/line managers. However, most of the participants confirmed that they do not have a document which entails the strategy of their firms.

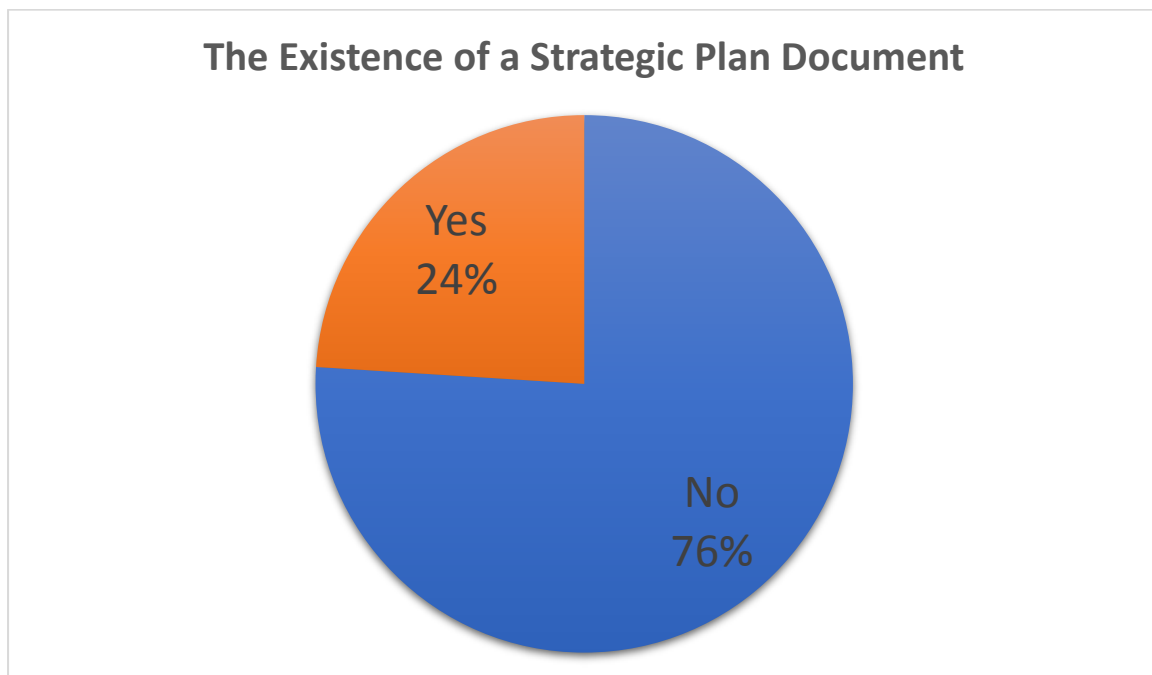


Figure 7. 8: Strategic planning documentation in contracting firms

76 per cent of Irish contracting firms within the study sample did not have a written strategic plan. This finding is consistent with Murphy's (2011) observation on construction service firms in Ireland who found that they tend to strategize informally without documenting their strategic plans. Limited emphasis on planning formality, comprehensiveness, and documentation reflects a little experience with strategic planning across a large number of construction contractors in Ireland. The experience of Irish construction contractors with strategic planning is investigated in the following section.

#### 7.2.2.5 Experience with Strategic Planning

Participants were asked to evaluate the experience of their firms with strategic planning. Half of the respondents confirmed that strategic planning is still emerging in their firms in comparison to only 15 per cent, who stated that strategic planning is well-developed. This

finding comes reflective to the several flaws observed in the characteristics of the strategic planning process across most of the study sample.

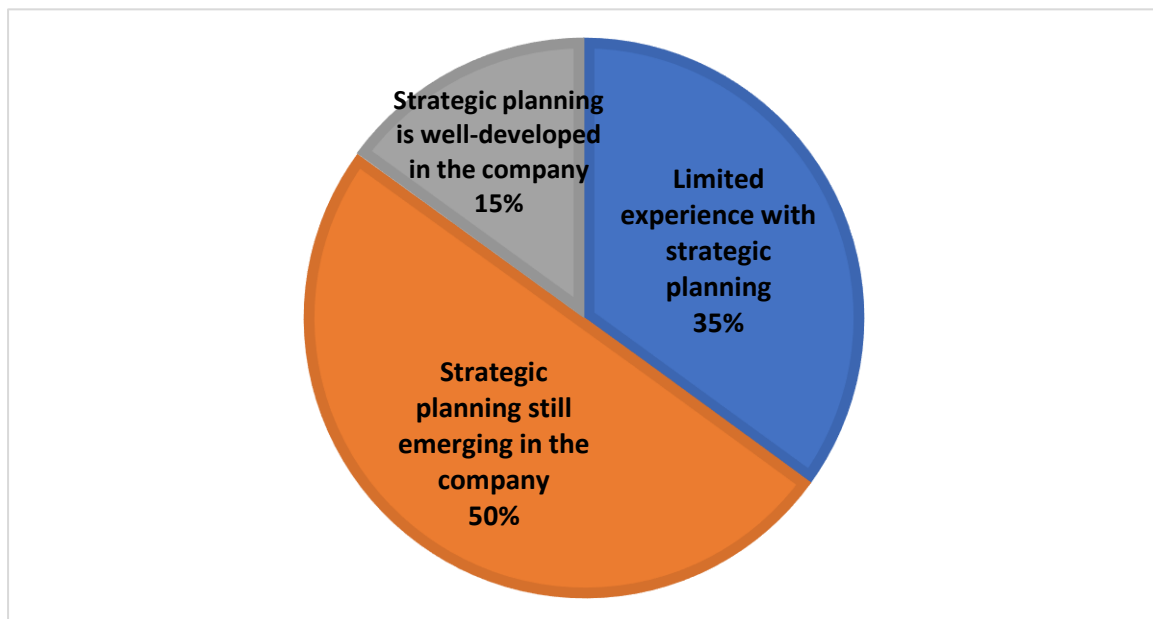


Figure 7. 9: Experience with strategic planning

The emergence of strategic planning in construction firms in Ireland is driven by the prevalent state of economic cyclicalities (Murphy, 2011). Strategic planning is deemed vital to aligning business operations (e.g. resources management, projects planning, financial planning) with the anticipated supply of construction projects. However, the prevalent cyclicalities of Irish economy restricts the possibility of planning for long horizons. Therefore, the following question sought to explore the strategic planning horizon of Irish contracting firms.

#### 7.2.2.6 Strategic Plan Time Horizon

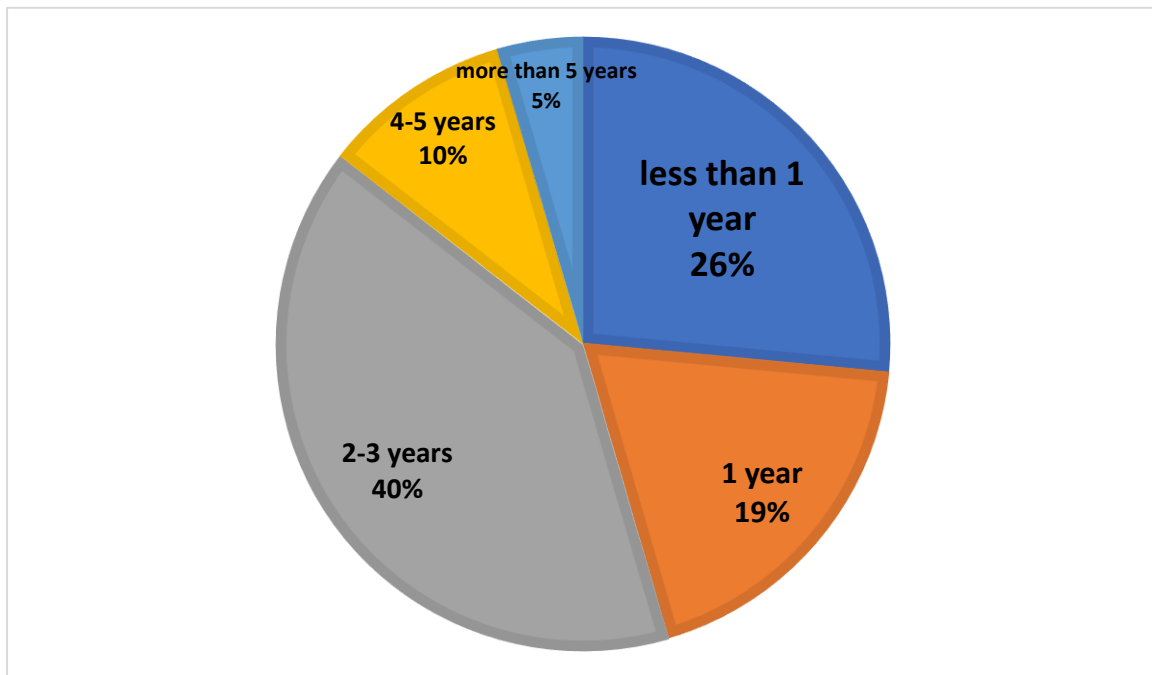


Figure 7. 10: Time horizon of strategic plans

The study findings confirm that the preferable duration of strategic plans within 85 per cent of construction firms in Ireland ranges between less than 1 year to 3 years. This finding contradicts with the observations of Chinowsky and Merideth (2002), Dansoh (2005), Price (2003), and Price et al. (2003) who discovered that contracting firms plan for a range of 3 to 5 years. A plausible explanation to this contradiction can be the severe boom-and-bust cycles characterising the Irish economy, and consequently the construction industry. The dominance of planning for shorter horizons was found consistent with the prevalence of planned-emergent approach to strategic planning across most Irish firms. Therefore, planning for shorter horizons can facilitate the alignment of strategic objectives with rapid market changes. However, the observed imperfections in the planning process, such as modest formality, comprehensiveness, and tools utilisation, can obstruct the success of strategic planning in achieving this alignment. Nevertheless, the section to follow investigated the outcomes of the strategic planning process, strategic content, in Irish contracting firms.



### 7.2.3 Strategic Choices

This section of the questionnaire explores the strategic choices of construction contractors in Ireland. Strategic choices is an area within which a considerable body of existing knowledge is available in many industries, except for the construction industry, and specifically Irish construction contracting sector. Tansey and Spillane (2016) described the strategic response of Irish contracting firms, on both corporate and business levels, in reaction to the last economic recession in 2007. Nonetheless, the contemporary corporate and business strategic choices of Irish construction contractors remain unbeknown.

#### 7.2.3.1 Corporate Strategy

The corporate strategy of Irish contractors is spread across the three different modes of operation outlined by Hunger and Wheelen (2010). The prominent scholars posited that a business firm could either pursue growth, stabilise its current operations, or retrench. A fourth choice was added to explore the possible combination of more than one of the above strategies. The corporate strategy of a firm establishes its competitive identity by identifying the industries and markets within which it competes (Bowman and Helfat, 2000). Moreover, the corporate strategy reflects the organisational goal to match its internal capabilities with the external environment through diversification, vertical integration, mergers and acquisitions, in addition to the allocation of resources across business units (Grant, 1995).

<b>Answer Choices</b>	<b>Response %</b>
Stabilise: we seek to maintain our current market position.	48
Grow: we are actively expanding into new sectors/markets.	26
Downsize: we are downsizing our current operations.	3
Combination of the above.	23
<b>Total</b>	100


Table 7. 5: Corporate strategy of construction contracting firms

Despite the present state of sustained economic growth in Ireland, 48 per cent of participants stated that they primarily aim to maintain their current market position rather than pursuing growth. The second category is composed of firms aiming to grow through expanding into new construction sectors and markets. Moreover, 23 per cent declared that their primary goal is a combination of the above options – they tend to focus on maintaining their current market share as well as growing when possible. Finally, a small percentage, 3 per cent, asserted that they plan to downsize their current operations.

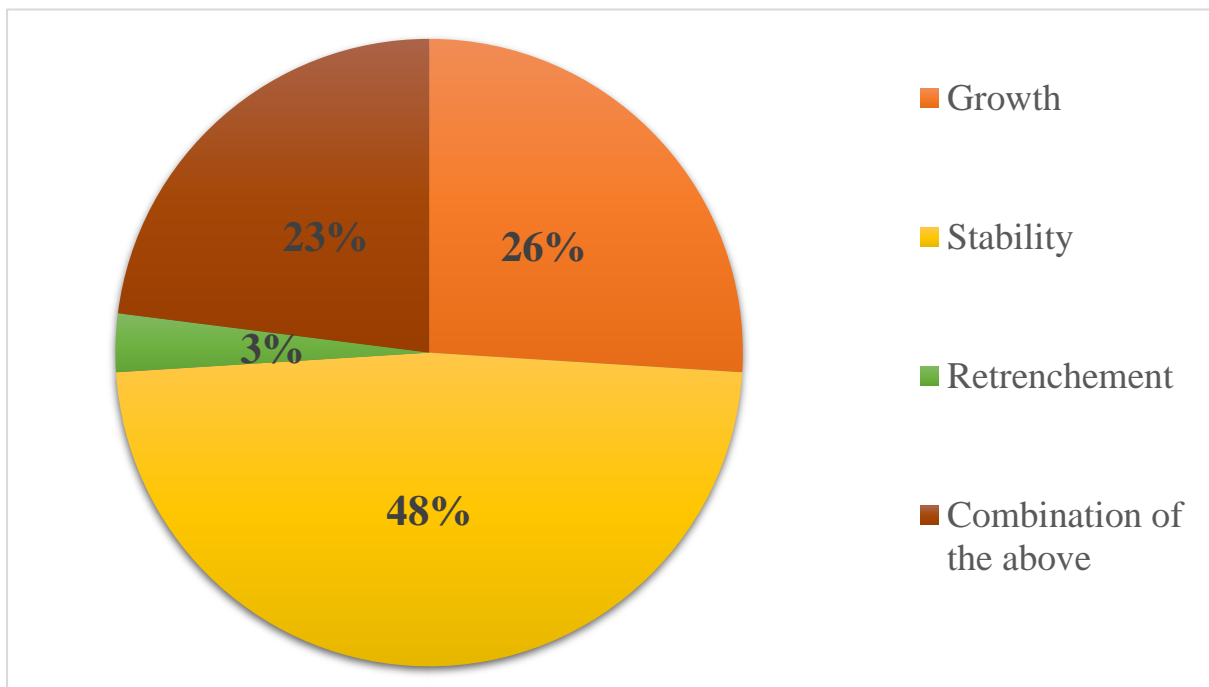


Figure 7. 11: Corporate strategy of contracting firms

The dominant preference of stabilisation reflects the inherent uncertainty and low margins of profit associated with the construction industry in Ireland. Several participants stated that their tendency to stabilise their current operations is reasoned by the anticipated risks associated with growth in the Irish market. “more turnover, more stress, and not more profit” – Firm 17. This corporate strategic choice is consistent with the prevalence of ‘defenders’ strategic type, and the planned-emergent approach to strategy formulation. It can be concluded that Irish contracting firms prioritise business survival in response to the turbulent nature of the construction industry.

Changes in demand for construction projects associated with macro-economic factors obstruct growth plans of contracting firms. “Currently endeavouring to maintain our position, noting that difficulties within the UK market due to Brexit having an effect on project pipelines” – Firm 12. Moreover, several industry-based factors, such as dated procurement processes, inflation, and resources acquisition, exacerbate the complexity of pursuing business growth in the Irish construction market. “Factors such as difficult contract forms coinciding with market inflation and resource retention and sourcing difficulties has had a significant effect on our growth plans.” – Firm 12. Therefore, 48 per cent of contracting firms pursue stabilisation due to the numerous risks associated with business growth in the Irish construction industry.

Despite the prevalent market uncertainty, the modest number of firms pursuing retrenchment manifests the steady growth of the Irish economy, as well as the construction industry. It can be deduced that Irish contracting firms remain positive towards the future of the domestic construction industry. Nevertheless, business success demands the achievement of sustainable competitive advantage in the market. Therefore, the following section aims to discover the business strategy of contracting firms in Ireland since it reveals how they seek to establish a competitive advantage in the industry.

#### 7.2.3.2 Business Strategy

Business strategy typologies describe the strategic behaviour of a business firm in response to market demands (Nandakumar et al., 2011). Several typologies of business strategy are outlined in the strategic management literature; nevertheless, this question is designed according to Porter (1980) typology of generic strategies. Porter's model has received the most scholarly attention in strategic management literature since it thoroughly explains how firms aim to serve clients, and divide them into strategic groups (Nandakumar et al., 2011; Parnell et al., 2015; Veett et al., 2009).

Porter (1980) posited that business firms can be divided into three group – firms pursuing cost leadership, differentiation, or focusing on a specific market segment. Although Porter (1980) argues that a firm must only adopt only one generic strategy to achieve business success, an additional option was added to explore the possible combination of more than one of the above-mentioned generic strategies.

<b>Answer Choices</b>	<b>Response %</b>
Low-cost: strive to achieve lower cost than rivals.	8
Differentiation: seek to differentiate our services and construction process from rivals to satisfy clients.	48
Focus/Low-cost: focus on a narrow market segment and compete with rivals on the basis of lower cost.	8
Focus/Differentiation: focus on a narrow market segment and compete on the basis of unique services.	8
Combination of the above.	28
<b>Total</b>	<b>100</b>

Table 7. 6: Business strategy of construction contracting firms

Despite the cost sensitivity of the construction industry, 48 per cent of participants confirmed that they primarily rely on differentiation business strategy to compete in the Irish construction industry. These findings are consistent with the observations of several studies reporting a global shift towards differentiation in construction firms (Hillebrandt et al., 1995; Lansley and Quince, 1981; Li and Ling, 2012; Lim et al., 2010; Low and Lim, 2000; Tan et al., 2012). Contractors aim to differentiate their services in order to raise the prevalent unsatisfactory profit margins in the industry (Ling et al., 2005; Uwakweh, 1996; Walker, 1996).

Modes of differentiation in the construction industry can be as following (Budayan et al., 2013):

- Marketing: increase advertising and improve the relationship with clients.
- Innovation: investing in research and development (R&D)/new technologies.
- Innovation: improve and increase the services offered.
- Innovation: innovative project management methods and speed up projects delivery.

Tansey et al. (2014) found that Irish contracting firms adopted these differentiation initiatives in response to the economic recession in 2007. Nevertheless, the second phase of fieldwork will seek to explore the reasons behind the tendency of Irish contracting firms towards differentiation strategy, as well as their modes of differentiation.

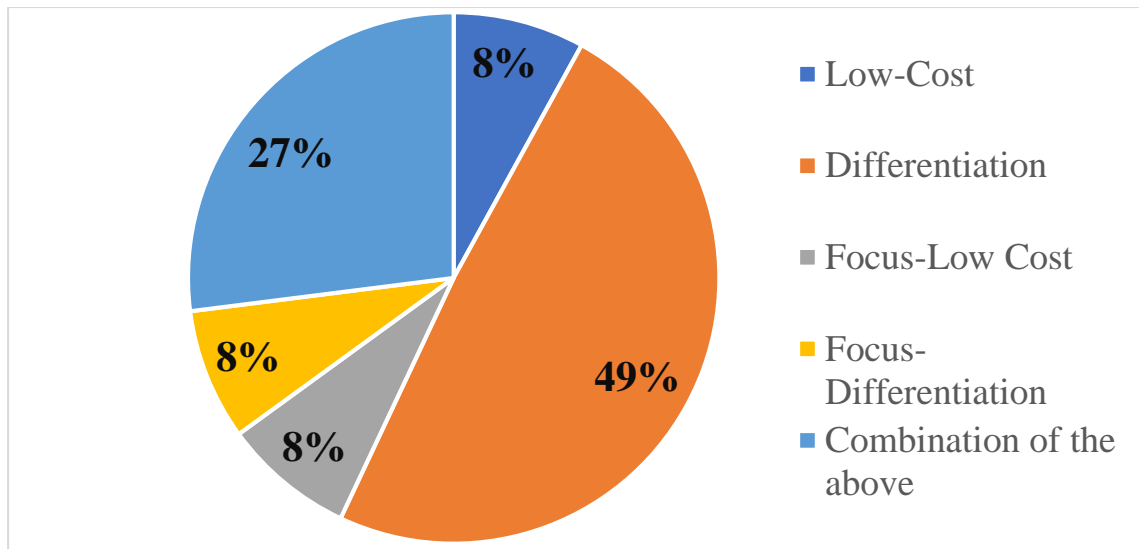


Figure 7. 12: Business strategy of contracting firms

27 per cent of participants stated that their business strategy is a combination of more than one generic strategies. They declared in the comments that they either combine differentiation and low-cost or the tripod of differentiation, low-cost and focus strategies.

“We strive to achieve lower cost than rivals, and also seek to differentiate our services from rivals” – Firm 5

“We aim to achieve lowest cost, aim to differentiate our construction process from competitors to satisfy clients, and focus on a narrow market segment” – Firm 7

Porter (1985), the founder of the typology of generic strategies, insisted that a business firm cannot combine more than one generic strategy at a time. Otherwise, it will end being ‘stuck in the middle’ – meaning that a firm will not obtain a competitive advantage over rivals. However, the unique nature of the Irish construction industry necessitates the combination of several generic strategies to compete successfully.

The construction industry in Ireland is characterised with elevated cost sensitivity due to the dominance of dated procurement methods (DKM, 2016; Mitchell, 2015). As a result, placing

considerable emphasis on lowering costs by maintaining operational processes is mandatory to tender for projects successfully. Likewise, differentiation of services is mandatory to overcome the tight profits margins prevailing in the industry. Therefore, this finding contradicts with a fundamental theoretical concept proposed by Porter. In contrary to Porter's proposition, the combination of several general strategies, in construction firms, can be a source of competitive advantage. The second phase of fieldwork will aim to investigate the reasons behind pursuing a combination strategy and the processes by which this combination is accomplished (see section 7.3.2). The contributions of participants will serve the development of a strategic management framework for Irish construction contracting firms.

A small percentage, 8 per cent, stated that their primary focus is on competing on the grounds of lowest cost. Ling et al. (2005) found that economic recessions exacerbate the cost sensitivity of the construction industry. Therefore, the prevalence of differentiation strategy across Irish contractors is solid proof of the positive outlook of the Irish economy.

The achievement of competitive advantage through business strategy requires the successful implementation of strategy. A dearth of knowledge exists regarding the characteristics and components of the strategy implementation process in an Irish construction context. Accordingly, the following question seeks to examine the implementation process in construction contracting firms in Ireland.

#### 7.2.4 Strategy Implementation Process

This question was designed to explore the primary factors constituting the strategy implementation process. Respondents were asked to indicate the extent of their agreement or disagreement with a number of statements regarding the process and procedures of strategy implementation within their firms. The following figure provides results in this regard.

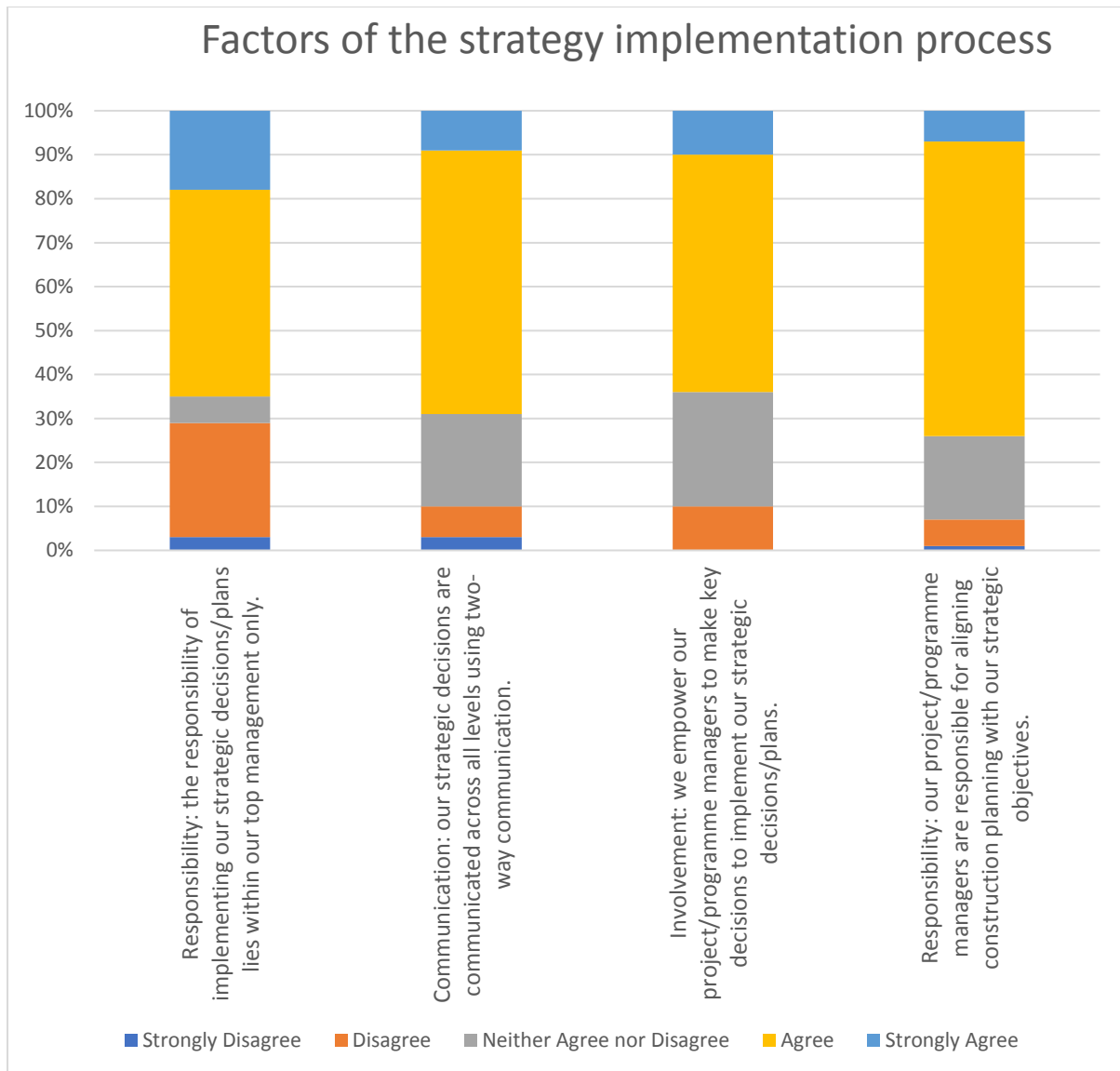


Figure 7. 13: Factors of the strategy implementation process in construction contracting firms

65 per cent of participants confirmed that senior managers are primarily responsible for implementing strategy within their firms. Nevertheless, a large percentage, 69 per cent agreed that strategic decisions are systematically communicated across all organisational levels. This finding reveals high awareness with strategic objectives across all organisational levels, an essential aspect of successful strategy implementation. However, the extent to which strategic objectives are communicated with lower levels can be correlated with firm size.



Smaller firms are more likely to adopt a flat structure, while larger firms are inclined towards a matrix structure (Gibson et al., 2015). Matrix structure pools construction professionals together for individual projects, resulting in more than one manager for every employee (Daft, 2000). Therefore, senior managers in larger construction firms may struggle to communicate the strategic objectives with lower hierarchical levels due to their limited interaction with organisational members. The impact of firm size on the communication of strategy across all organisational levels will be explored in the following sections.

Lower levels are also heavily engaged in the implementation process. 64 per cent agreed that they empower project managers to make key decisions to implement strategy. Likewise, 74 per cent agreed that project/programme managers are responsible for aligning construction planning with the strategic objectives. These findings reflect a tendency towards the decentralisation of decision-making in Irish contracting firms.

Marx (2016) found that the implementation of differentiation strategy requires a decentralised organisational structure to promote coordination and flexibility. The above findings confirmed a tendency towards decentralised decision-making as well as the prevalence of differentiation business strategy across Irish contracting firms. Therefore, the study findings proof a robust alignment between the strategy and structure of Irish contractors. However, the main limitation of this conclusion lies in only targeting senior managers of target firms. The validation of this conclusion demands to target project managers to explore the extent to which they are aware with the strategic objectives of their firms, involved in the strategy implementation process, and construction projects are aligned with the firm strategy.

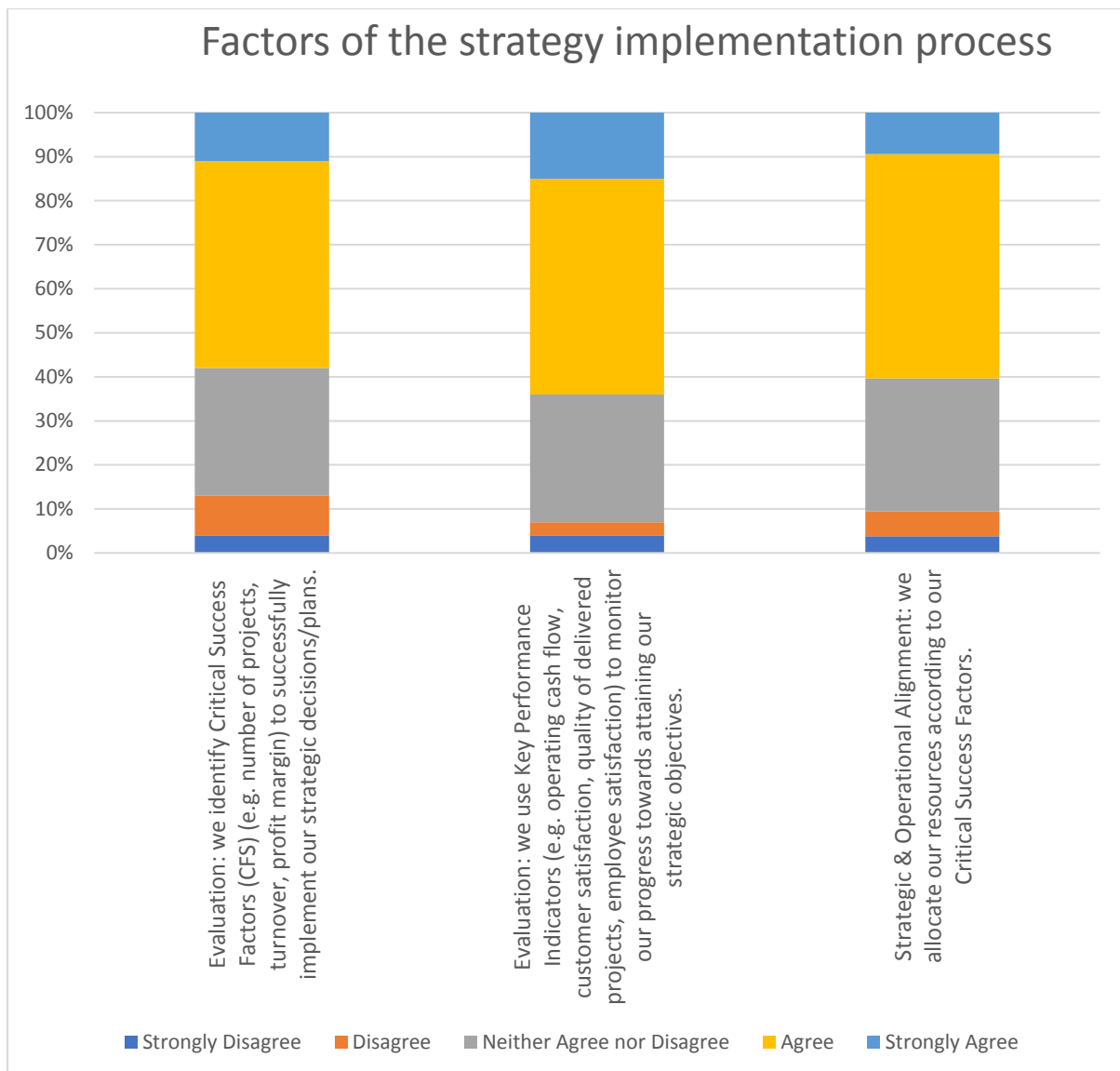


Figure 7. 14: Factors of the strategy implementation process in construction contracting firms

The above figure demonstrates that only 58 per cent of participating firms agreed that they set critical success factors such as turnover and profit margin, to measure their strategic performance. Moreover, 64 per cent only confirmed that they rely on key performance indicators to monitor the performance of individual teams or departments towards attaining strategic goals. These findings are considered alerting due to the necessity of measuring strategic performance systematically in pursuit of continuous improvement. Nevertheless, a

possible explanation could be that firms not adopting critical success factors/key performance indicators are categorised as reactors; and therefore, do not have established strategic objectives to be measured. Therefore, the relationship between strategic type and adoption of critical success factors/key performance indications will be explored in the sections to follow (see section 7.2.7).

#### 7.2.5 Barriers to Strategy Formulation and Implementation

This section is concerned with exploring barriers to formulating and implementing strategic plans in Irish construction contracting firms. First, respondents were asked the frequency in which several possible challenges to strategy formulation were experienced. The figure below presents the findings in this regard.

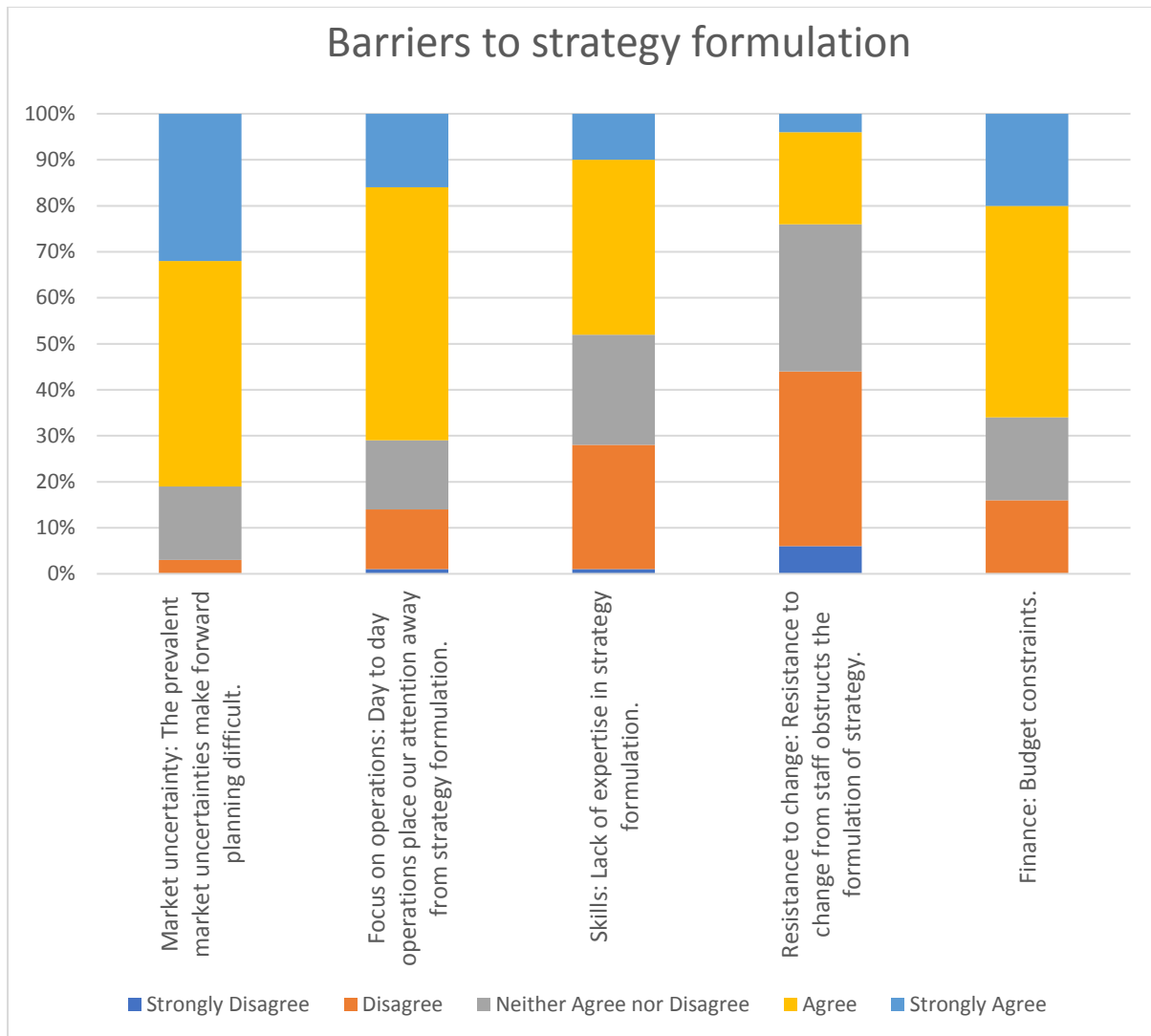


Figure 7. 15: Barriers to strategy formulation in construction contracting firms

Participants confirmed that market uncertainty is the most significant obstacle facing the formulation of strategic plans in construction firms. This finding explains the need for a more formal and comprehensive approach to strategic planning in Irish contracting firms, as stated earlier. Other barriers to strategic planning were found to be budget constraints, as stated by 66 per cent, and lack of time available due to the demands of daily operations, as confirmed by 71 per cent. However, the importance of strategic planning for business survival, as mentioned by participants in the comments, requires its prioritisation over other business activities.

48 per cent of respondents confirmed that lack of expertise with strategic planning is a fundamental barrier to strategic planning in their firms. This finding is consistent with previous findings concerning the limited experience with strategic planning among a large number of construction firms in Ireland. Surprisingly, only 24 per cent of participants agreed that resistance to change from lower managerial levels is less likely to be an issue. This result contradicts with the observations of several scholars, such as Gibson et al. (2015) and Rapert et al. (2002), concerning the regular resistance of lower hierarchical levels to strategic objectives set by senior managers.

Regarding the potential barriers to strategy implementation, respondents were asked to indicate the extent of agreement or disagreement with a number of possible challenges to strategy implementation faced by their firms. The following figure provides results in this regard.

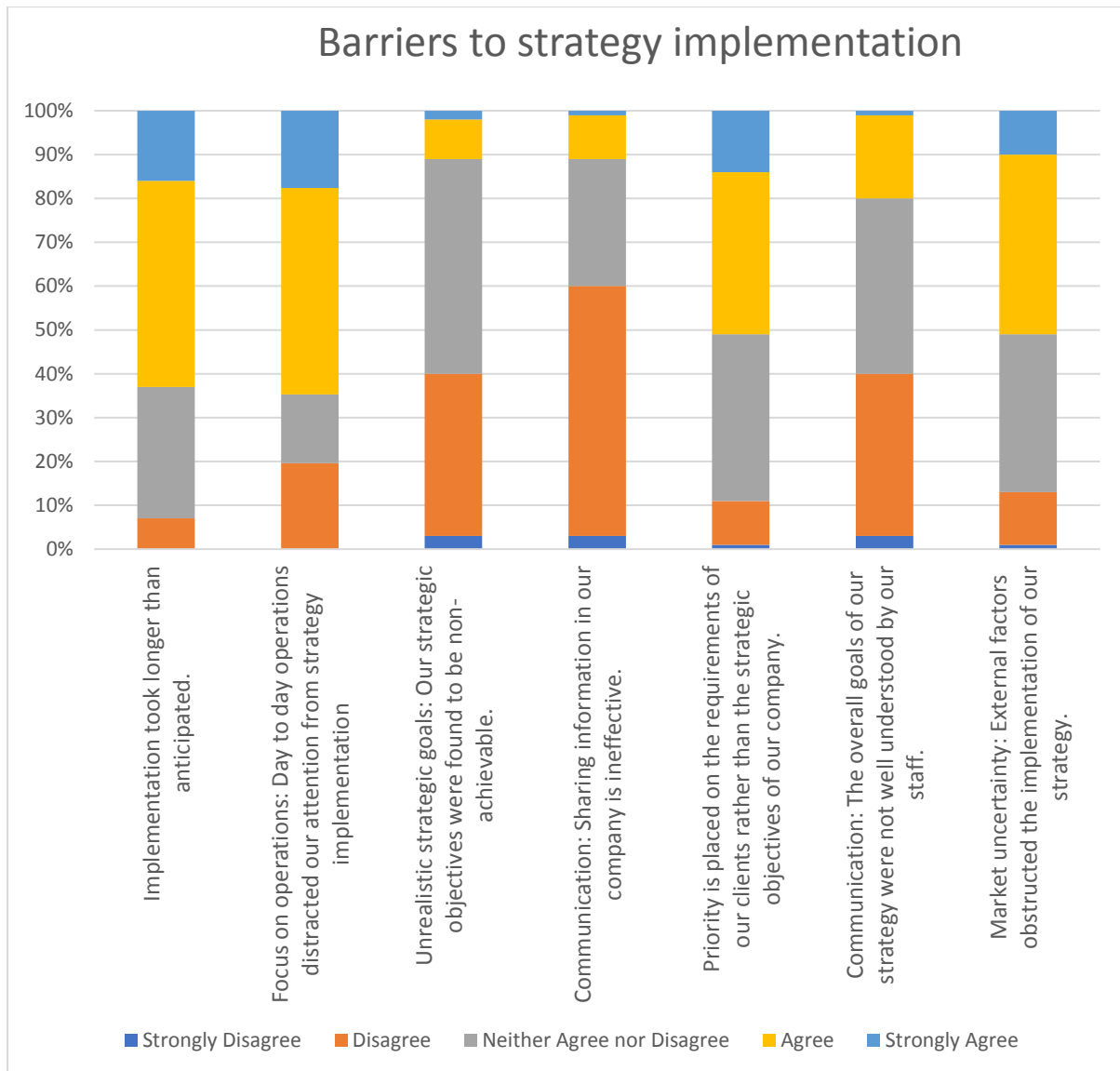


Figure 7. 16: Barriers to strategy implementation in construction contracting firms

In consistence with barriers to strategy formulation, market uncertainty (as agreed by 51 per cent) and demands of daily operations (as agreed 66 per cent) are robust barriers to strategy implementation. Moreover, 51 per cent of the respondents confirmed that prioritising the requirements of clients over the implementation of strategy is a robust challenge to the implementation process. This finding demonstrates a misalignment between the strategic objectives of contracting firms and the requirements of clients. Finally, it was found that communication within companies is less likely to be a barrier to strategy implementation.

The previous sections investigated the strategic planning characteristics, strategic choices, strategy implementation factors, and barrier to strategy formulation and implementation within construction contractors in Ireland. Nevertheless, the above factors are likely to vary according to the size of contracting firms. Dansoh (2005) found a positive correlation between firm size and strategic planning characteristics in Ghanaian contracting firms. Therefore, it is important to conduct a comparative analysis of the variables mentioned above in micro, small, medium, and large firms.

#### 7.2.6 Strategic Planning and Implementation according to Firm Size

Irish construction contractors were categorised according to the number of full-time employees within companies, as presented in the figure below:

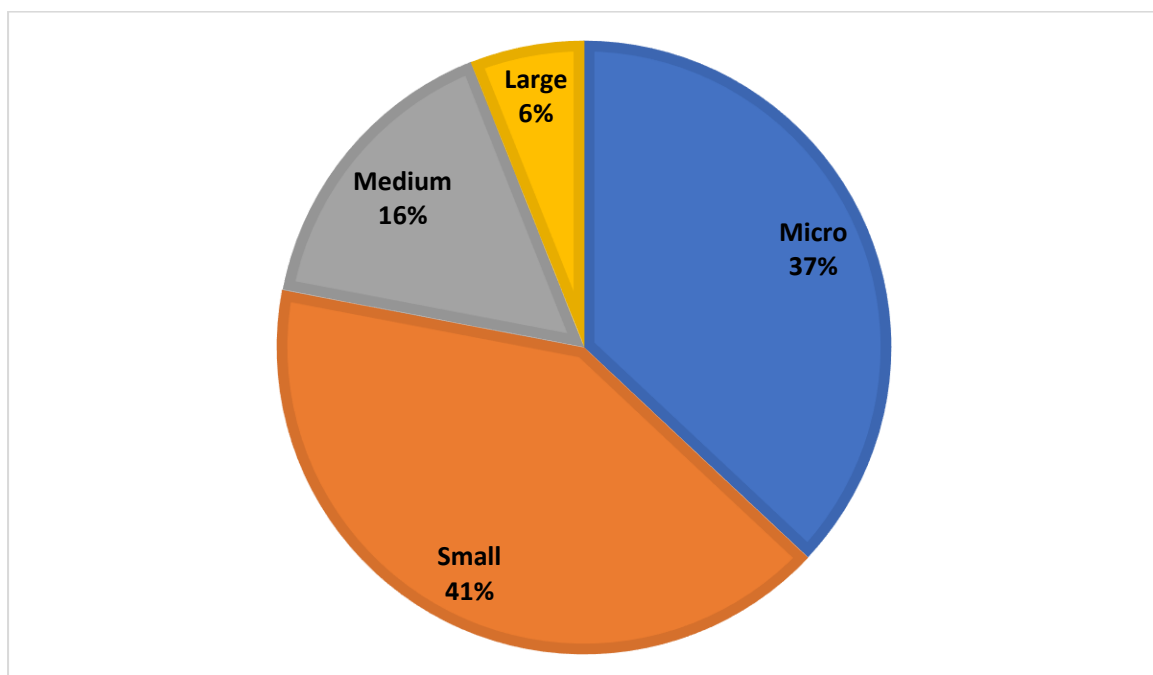


Figure 7. 17 : Classification of firms in the study sample according to their size

The comparative analysis starts with analysing the impact of firm size on the strategic type, approach to strategy formulation, and dimensions of the strategic planning process.

### 7.2.6.1 Strategic Type

The study findings revealed that 50 per cent of micro firms are categorised as ‘Reactors’. Nevertheless, the percentage of reactors is limited to 15 per cent in small and medium firms and disappears in large firms. Given that reactors are firms that lack an established strategic vision, a relationship can be established between firm size and the engagement in strategic planning within contracting firms in Ireland. Irish contractors are more likely to engage in strategic planning as they grow in size.

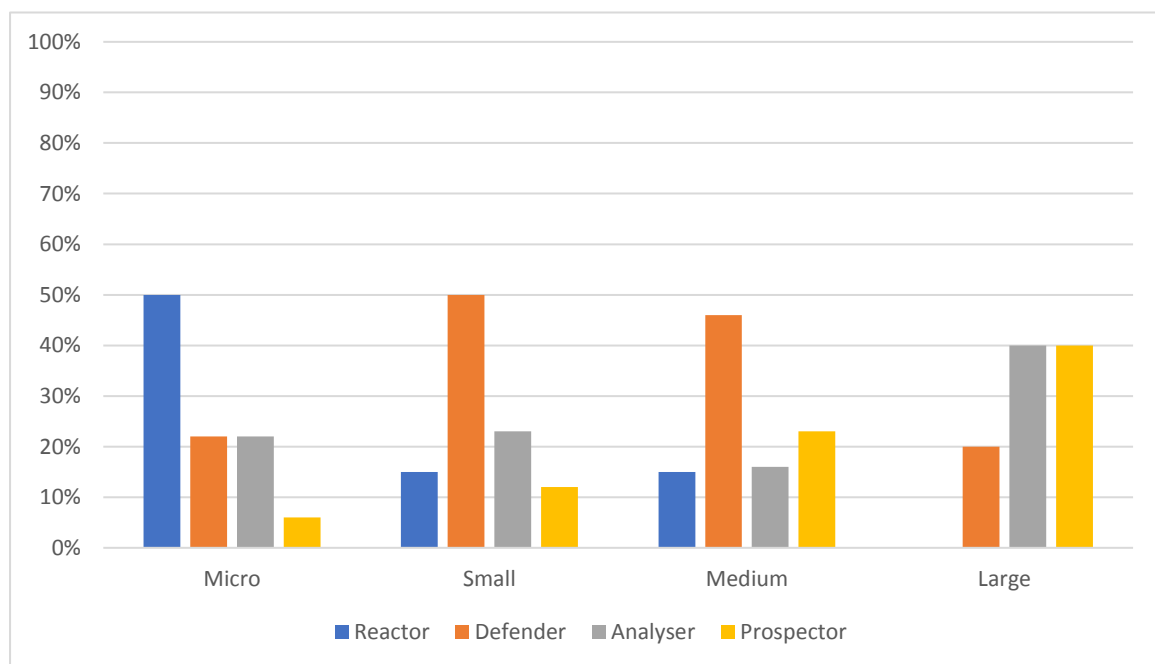


Figure 7. 18 : Comparison between firm size and strategic type

Another relationship can be observed between the percentage of firms categorised as ‘Prospectors’ and firm size. Only 6 per cent of micro firms described their strategic type being prospectors. 12 per cent of small and 23 per cent of medium firms were found to be prospectors. Finally, 40 per cent of large firms were found to be prospectors. Therefore, it can be concluded that Irish contracting firms are inclined towards being prospectors as they grow in size.



Concerning the ‘Defenders’ category, the highest percentage of firms that fall under this category was found to be small and medium firms with 50 per cent and 46 per cent respectively. The percentage of ‘Analysers’ was found to be consistent amongst all sizes of Irish contracting companies. It can be summarised that large firms are driving innovation within the industry, small and medium companies are primarily defending their market share, and micro firms react to external circumstances as they arise without having an established strategic orientation.

#### 7.2.6.2 Approach to Strategy Formulation

It was found that the strategic plans of 53 per cent of micro firms emerge over time according to market changes and clients demands. The percentage of small firms adopting an ‘emergent’ approach to strategy formulation is limited to 38 per cent. Moreover, none of the medium or large firms relies on this approach. The above results demonstrate a clear tendency towards an emergent approach by micro firms, majorly categorised as reactors. This relationship is consistent with the observations of Murphy (2011) on construction service firms in Ireland. Reactors avoid the formulation of pre-emptive strategic plans; therefore, they tend to adopt an emergent approach to strategy to facilitate responding to market changes as they arise. As a result, it was found that only 3 per cent of micro firms adopt a ‘Planned’ approach to strategic planning.

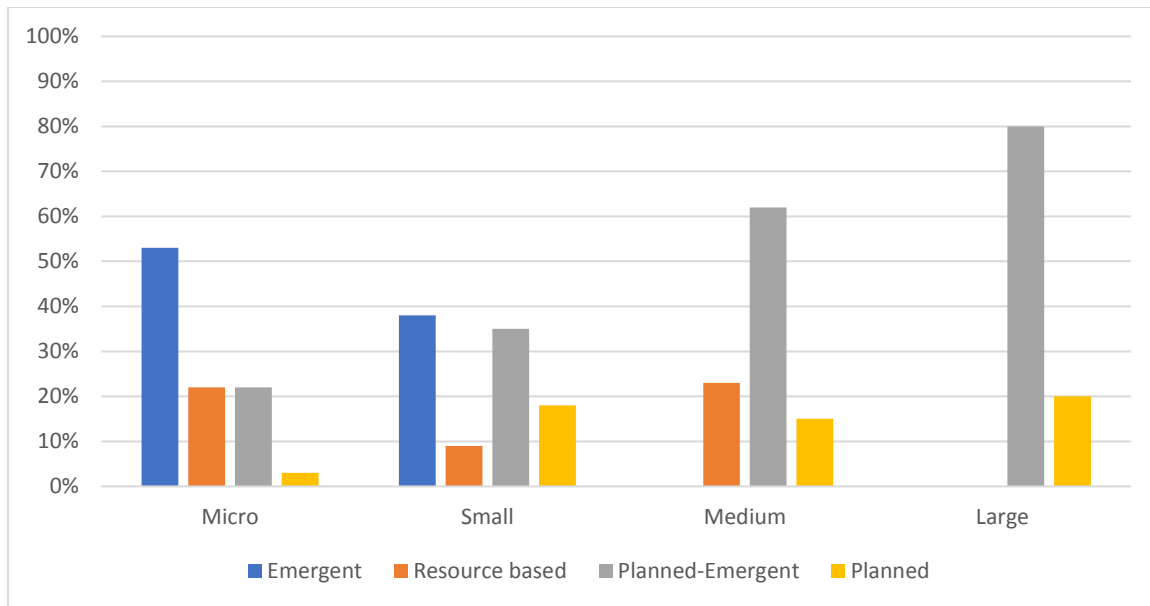


Figure 7. 19 : Comparison between firm size and approach to strategy formulation

Despite the labour and capital intensity of the construction industry, the resource-based approach to strategy was only adopted by 22 per cent of micro firms, 9 per cent of small firms, 23 per cent of medium companies, and none of the large corporations. Several studies found the resource-based view to be the dominant approach to strategy formulation among contracting firms (Phua, 2006; Chew et al. 2008; Li and Ling; 2012). Resources were considered the primary source of competitive advantage due to the resources intensity of the operational construction process (Teo and Renosen, 2012). However, the large degree of market turbulence characterising the Irish construction industry influences the priorities of contractors in Ireland (i.e. attention devoted to market changes precedes that dedicated to analysing and developing internal resources). This conclusion is consistent with the selection of ‘market uncertainty’ as the primary barrier to strategic planning in Irish contracting firms.

A ‘Planned-Emergent’ approach to strategy formulation was found to be adopted by 22 per cent of micro firms, 35 per cent of medium firms, 62 per cent of medium companies, and 80 per cent of large corporations. The regular changes in market-based and macro-economic

factors necessitate the continuous updating of a firm's strategy. Therefore, a 'Planned' approach to strategy formulation was adopted by a dearth, 13 per cent, of Irish contracting firms.

A relationship can be observed between firm size and the approach to strategic planning. The adopted approach tends to change from an 'emergent' to a 'planned-emergent' approach as a firm grows in size. Moreover, the above findings demonstrate that firms adopting an 'emergent' approach have a marginal tendency towards a reactor type. On the contrary, 'prospectors' are likely to rely on a 'planned-emergent' approach to lead the industry.

#### 7.2.6.3 Planning Process Characteristics

The previous sections ascertained that firm size has a significant impact on strategic type and approach to strategic planning in Irish contracting firms. The influence of firm size extends to cover the dimensions of the strategic planning process as well. 89 per cent of micro and small firms confirmed that they do not have a formally documented strategic plan. However, the percentage of firms not documenting their strategic plans is limited to 33 per cent and 25 per cent in medium and large firms, respectively. The existence of a strategic plan document is an indication of the explicit inclusion of strategic planning on the corporate agenda (Brinckmann et al., 2010). Therefore, it can be concluded that the extent of attention devoted to strategic planning is highly correlated with company size in Irish construction contracting firms.

The above finding is reflected in the level of experience with strategic planning amongst Irish contractors. Only 4 per cent of micro firms and 15 per cent of small firms believe that strategic planning is well-established in their companies. However, medium and large firms expressed higher levels of experience with the planning process. 33 per cent and 50 per cent of medium and large firms stated that the process is well-established in their companies respectively. Therefore, it can be deduced that a firm's experience with strategic planning is also correlated

with company size. Nonetheless, these figures reveal that the level of expertise among Irish contractors remain limited.

The modest level of experience with strategic planning can be observed by investigating the dimensions of the strategic planning process within target firms. 50 per cent of large firms confirmed that they do not gather external information regarding the economy or competitors. This figure increases to 66 per cent in medium firms, and 70 per cent in micro and small companies. Similarly, only 50 per cent of large, 65 per cent of medium, 26 per cent of small, and 14 per cent of micro firms rely on strategic planning tools to gather and analyse information. The above findings largely contradict with the assertion of participants that market uncertainty is the primary challenge to strategic planning in their firms. Therefore, it was expected that participants would place more considerable emphasis on gathering external information prior to the formulation of strategic plans.

Another sign of imperfection in strategic planning is evident in the limited attention to the evaluation of strategic performance. Only 50 per cent of large, 67 per cent of medium, 31 per cent of small, and 21 per cent of micro firms confirmed the adoption of a mechanism to evaluate their strategic decisions. However, the evaluation of strategic decisions is a critical step towards the continuous improvement of strategic performance and strategic planning process.

In summary, the above findings demonstrate a robust relationship between firm size and the diverse facets of strategic planning in Irish construction contracting firms. Firstly, there is a direct linkage between firm size and strategic type. Micro firms are mostly categorised as reactors to external circumstances as they arise. As firm size grows, the high percentage of ‘reactors’ is replaced with ‘analysers’ and ‘prospectors’. Given that ‘reactors’ are described as firms that do not have a strategic vision (Miles and Snow, 1978; Parnell et al., 2015), it can be

concluded that Irish contractors are more likely to engage in strategic planning as they grow in size.

Regarding the approach to strategic planning, micro firms tend to mostly rely on an ‘emergent approach’ in comparison to medium and large firms that adopt either a ‘planned-emergent’ approach. An interesting relationship between the strategic type and approach to strategy formulation can be observed from the above findings. A tendency towards a ‘planned-emergent’ approach by ‘prospector’ or ‘analyser’ types can be observed. Similarly, firms adopting an ‘emergent’ approach to strategic planning are mainly categorised as ‘reactors’. This observation is consistent with that of Murphy (2011) on Irish construction service firms.

The above findings revealed that larger firms are more likely to have a structured process to strategic planning, documented plan, higher experience the process, and significant emphasis placed on gathering internal information before initiating strategic plans. However, modest attention is devoted by all firm sizes to gathering external information, use of planning tool, and adopting a mechanism to evaluate strategic performance. Conducting competitor and environmental analysis is deemed mandatory to compete successfully within an industry (Murphy, 2011; Porter, 1996). Therefore, modest emphasis on external analysis in Irish contracting firms can adversely influence the effectiveness of their strategic decisions.

The observed flaws in the characteristics of the strategic planning process can limit the chances of survival of Irish contractors amid the prevalent turbulent environment. As a result, there is a crucial need to develop the strategic planning process, especially in small firms, to mitigate the implications of construction market uncertainty in Ireland.

#### 7.2.6.4 Strategy Implementation Process

Several scholars in the strategic management literature, such as Gibson et al. (2015), reported the complexity of communicating strategic decisions in large firms. Nevertheless, minimal

variances were found regarding the extent of communication of strategic decisions across all organisational levels within Irish contracting firms. On the other hand, it was found that firm size largely determines the organisational members responsible for strategy implementation. 73 per cent of micro, 70 per cent small, and 58 per cent of medium firms reported that senior managers are primarily responsible for implementing strategy. In large firms, the responsibility for strategy implementation is delegated to lower managers, such as business unit, regional, and programme managers. Only 25 per cent of large firms confirmed that senior directors are responsible for implementing strategy. Nevertheless, the implementation of strategy is mainly dependent on the context of each firm. Therefore, exploring the strategic implementation process within Irish contracting firms will be thoroughly addressed in the second phase of research.

#### 7.2.7 Strategic Planning and Implementation according to Strategic Type

Irish construction contracting firms were categorised into ‘prospectors’, ‘analysers’, ‘defenders’, and ‘reactors’ according to Miles and Snow (1978) typology. Prospectors continually innovate and seek new opportunities to be at the forefront of competition and business development. Therefore, their approach to strategy formulation is likely to be based on their unique internal competences. However, the study findings revealed that none of the firms falling under the ‘prospectors’ category relies on a resource-based approach to strategy formulation. Therefore, there is an apparent contradiction between the strategic type and approach to strategic planning within these firms.

Prospecting firms are primarily innovating in pursuit of business growth. Innovation and development provide prospecting firms with the capability of business growth and expansion into new market sectors. However, the study findings revealed that only 17 per cent of firms that fall under the prospecting category are pursuing business growth. Defending of market

share was prioritised over business growth by prospecting firms. Therefore, the strategic type of this group contradicts as well with their corporate strategy.

Analysers focus on the analysis of emerging trends to adopt those which have proven successful, demanded by competitors, and compatible with their business operations. They have a planned strategy, yet they are continuously scanning the market in pursuit of arising opportunities. On the other hand, defenders primarily aim to defend their market share in order to maintain business survival. Both categories rely on the extensive and systematic analysis of internal and external factors to determine their corporate strategy, business strategy, and innovations to be adopted. However, exploring the dimensions of the strategic planning process within these firms revealed alerting results that warrant close attention.

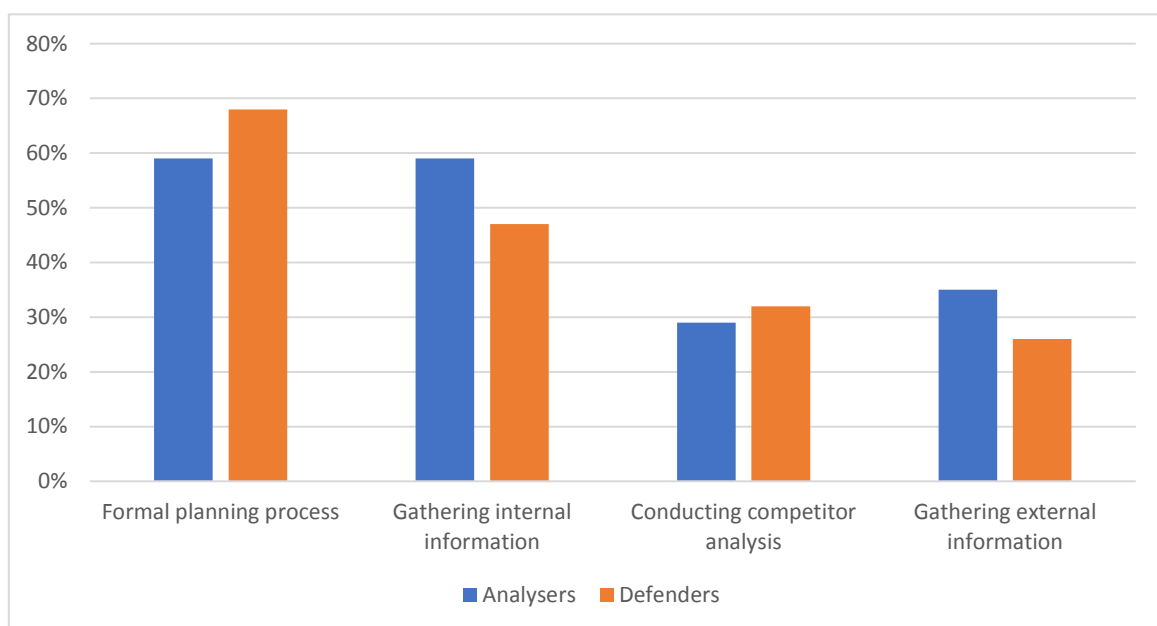


Figure 7. 20: Comparison between strategic type and planning dimensions

Only 16 per cent of firms categorised as ‘analysers’ rely on a resource-based approach to strategy formulation. They either adopt a planned, emergent, or planned-emergent approach to design their strategy in accordance with economic and market variables. Nevertheless, the above table reveals that these firms place more emphasis on internal analysis when compared

to competitor and external analysis. It was found that 59 per cent consistently analyse their resources, in comparison to 29 per cent of firms that conduct competitor analysis, and 35 per cent devote attention to analysing the macro-economy and market-based factors.

Similarly, only 16 per cent of ‘defenders’ adopt a resource-based approach to strategic planning. Nonetheless, internal analysis in this category is more evident than external analysis. 47 per cent of ‘defenders’ conduct internal analysis regarding their resources and processes. The percentage of firms undertaking competitor analysis is limited to 32 per cent. Finally, external analysis is only conducted by 26 per cent of firms falling under the ‘defenders’ category. Therefore, it can be concluded that the strategic type and approach of these firms are inconsistent with the characteristics of their strategic planning process. This conclusion reveals a critical flaw in strategic planning within Irish contracting firms.

Regarding strategy implementation, it was discovered that 42 per cent of firms do not have critical success factors (e.g. turnover, profit margin) to benchmark their strategic performance. Moreover, they do not rely on key performance indicators to monitor projects performance. These findings were considered critical due to the importance of measuring strategic performance in pursuit of continuous development. A possible explanation provided earlier that firms not relying on these measurement criteria are categorised as reactors; therefore, do not have established strategic objectives to be measured. Therefore, the following table demonstrates the relationship between strategic type and adoption of critical success factors/key performance indications.



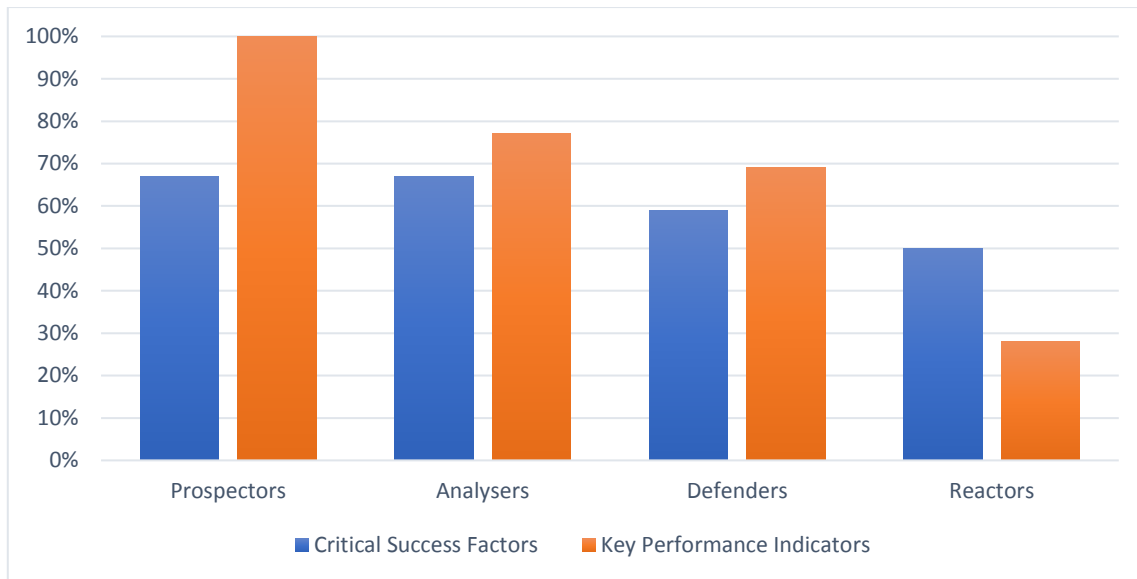


Figure 7. 21 : Comparison between strategic type and performance measurement criteria

The above figure revealed that the strategic type does not widely influence the adoption of critical success factors to benchmark strategic performance. A range of 33 per cent to 50 per cent within each category does not adopt a mechanism to evaluate strategic performance. This finding reveals a severe imperfection in the strategy implementation process across target firms. Moreover, a relationship can be observed between strategic type and the adoption of key performance indicators to evaluate projects performance. 100 per cent of prospectors, 77 per cent of analysers, 69 per cent of defenders, and 28 per cent of reactors adopt a performance indicators mechanism. Therefore, it can be concluded that there is a relationship between strategic type and the adoption of criteria to measure projects performance. Prospectors, analysers, and defenders are more likely to adopt a mechanism to measure projects performance when compared to reactors (i.e. firms that lack a strategic vision). The prioritisation of measuring projects performance over benchmarking strategic performance reflects the inclination of corporate planning in Irish contractors towards tactical projects planning rather than strategic planning.

### 7.2.8 Strategic Planning and Ownership Structure

Dansoh (2005) observed the presence of a robust correlation between company type and engagement in strategic planning within Ghanaian construction contracting firms. Sole proprietorships, partnerships, and private limited liability companies rarely engage in strategic planning. On the other hand, subsidiaries of multinational groups engage are more likely to engage in strategic planning since they are obligated to follow a strategic plan designed by expatriate firms (Dansoh, 2005). Likewise, public limited liability companies engage in strategic planning to maintain business survival on the long-term and improve their stock value on the short one (Desai, 2000). Therefore, this section seeks to explore the relationship between ownership structure and engagement in strategic planning within an Irish construction context.

The strategic type was used as an indication of engagement in strategic planning. ‘Reactors’ are categorised as firms that lack a strategic vision (Miles and Snow, 1978; Parnell et al., 2015); therefore, it is unlikely that they engage in strategic planning. The following figure compares the relationship between ownership structure and being categorised as a ‘reactor’.

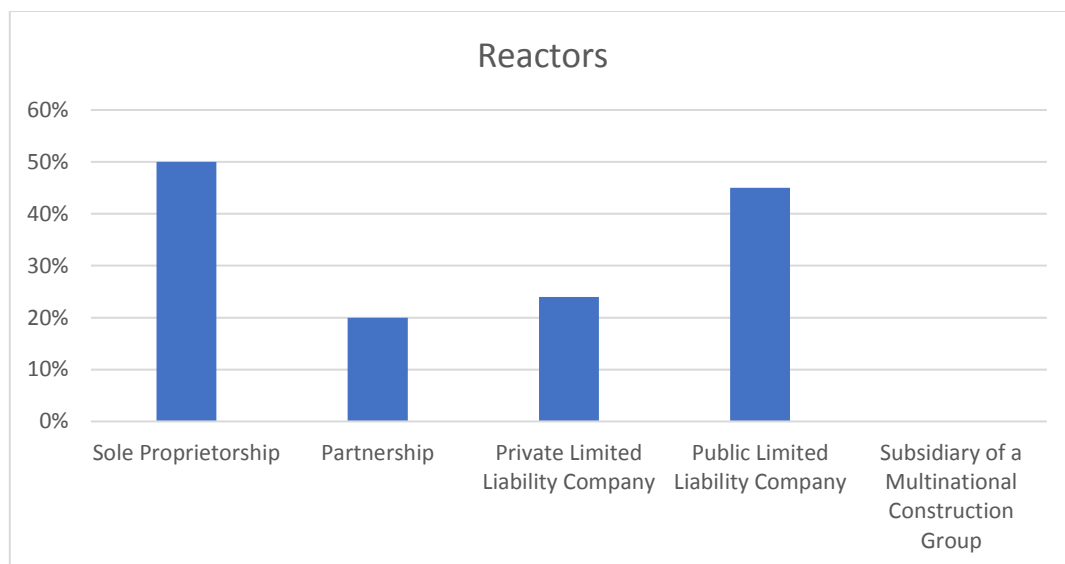


Figure 7. 22 : Comparison between ownership structure and strategic type

The above table reveals a relationship between the ownership structure and engagement in strategic planning within construction contracting firms in Ireland. 50 per cent of sole proprietorships were categorised as ‘reactors’, while none of the subsidiaries of multinational groups fell under this category. It can be the case that subsidiaries of multinational groups operating in the Irish market are obliged to follow the strategic plans designed by their expatriates. In summary, the study findings in the Irish, developed, construction market, were found to be consistent with those of the Ghanaian, developing, construction industry.

46 per cent of public limited liability companies were listed as reactors. Moreover, 88 per cent of these companies do not have a documented strategic plan. Hence, there is no relationship between being a public limited liability company and engagement in strategic planning. Desai (2000) found that public limited liability companies experience an improvement in stock value upon the release of their strategic plan documents. Therefore, the engagement of this category in strategic planning is deemed necessary to reap short-term and long-term benefits.

#### 7.2.9 Approach to Strategy Formulation and Planning Dimensions

The approach to strategy formulation largely influences the characteristics of the strategic planning process (Murphy, 2011). The adoption of a ‘planned’, ‘emergent’, or a ‘planned-emergent’ approach demands continuous assessment of market dynamics to develop/amend strategic plans according to environmental changes. Moreover, a ‘resource-based’ approach to strategy formulation predicates close attention to the analysis of internal skills, processes, and factors of production. Likewise, external analysis remains necessary for firms adopting the resource-based view in order to align their internal capabilities with market demands. Therefore, this section aims to explore the relationship between the approach to strategic planning and dimensions of the strategic planning process.

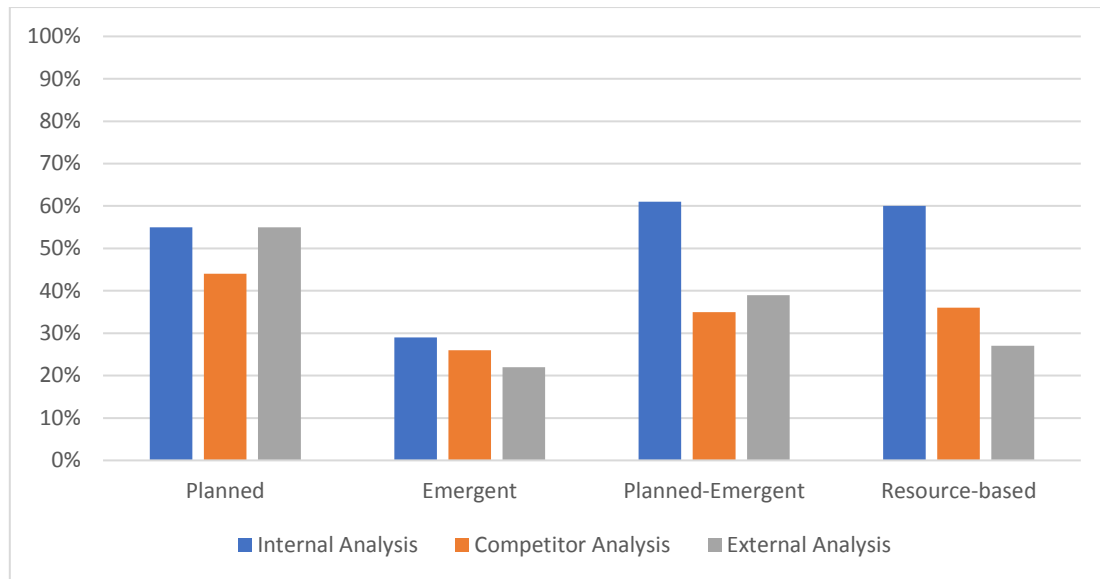


Figure 7. 23 : Comparison between strategic approach and planning dimensions

The above table reveals that the degree of comprehensiveness of strategic planning in firms adopting an ‘emergent’ approach falls behind the other three approaches to strategic planning. This finding reflects confusion regarding the meaning of an ‘emergent’ approach to strategic planning among senior managers of Irish contracting firms. Although an emergent approach does not encourage the predetermination of strategic orientation, it stresses the importance of systematic internal/external analysis to develop a strategy in response to arising challenges (D’Aveni et al., 2010; Grant, 2003; Prahalad and Hamel, 1994). Therefore, the effectiveness of ‘emergent’ strategic planning in Irish contracting firms can be doubted due to the modest emphasis placed on planning comprehensiveness.

Firms adopting a ‘planned’ approach to strategy formulation expressed the equal importance of internal and external analysis to developing strategic plans. 55 per cent of firms falling under this category conduct both types of analysis before the formulation of strategic plans. Competitor analysis was deemed less critical since it was conducted by 44 per cent of firms only. Nevertheless, the above results reflect a modest level of planning comprehensiveness within these firms.

Several scholars, such as D'Aveni et al. (2010) and Prahalad and Hamel (1994), posited that the 'planning' approach is not applicable in turbulent environments since it presumes market predictability and stability. As a result, the effectiveness of the 'planning' approach in Irish contracting firms can be questioned due to the inherent volatility of the Irish construction industry. Moreover, the limited emphasis placed on internal and external analysis within firms adopting the 'planning' approach exacerbates the complexity of predicting market variables. Therefore, the comprehensive and systematic analysis of the business environment is mandatory to develop and amend strategic plans that are compatible with the Irish market.

Firms incorporating a 'planned-emergent' approach to strategic planning was found to be the largest group within the study sample with 37 per cent. Nevertheless, they expressed limited attention to external analysis since it is conducted only by 39 per cent of firms within this group. The modest degree of planning comprehensiveness largely contradicts with the approach to strategic planning. Therefore, this finding reflects a critical imperfection within this group of firms.

Finally, it was found that 40 per cent of firms adopting a resource-based approach do not analyse their internal resources before developing strategy. This finding is alerting due to the importance of analysing the value, rarity, and imitability of resources as they are the primary source of competitive advantage. Moreover, the percentage of firms undertaking external analysis is limited to 27 per cent. Modest attention to external analysis remains a severe flaw since the scope of planning within these firms should focus on aligning a firm's resources with market demand (Chew et al., 2008; Schroeder, 1995). Therefore, the systematic analysis of the industry environment is mandatory to explore business opportunities and market threats. In summary, the above findings reveal critical deficiencies in the strategic planning process across Irish construction contracting firms, and incompatibility between the planning approach and planning dimensions.

### 7.3 Analysis of Phase 2: Qualitative Data

The second phase of the research involved twelve semi-structured interviews undertaken with senior managers of construction contracting firms in Ireland registered in both CIF and CIRI. This section provides a comprehensive thematic analysis for the gathered qualitative data and concludes by linking the findings of both fieldwork phases in light of the research aim and objectives. Most of the themes were derived from the literature review on strategic management. However, the following themes emerged from the responses of participants (profitability, technology, competition, repeat business, future recession, inflation, and interest rate). The thematic analysis starts with exploring the general information relating to the research participants.

#### 7.3.1 General Company Information

Participants in this fieldwork phase were selected from the respondents to the online questionnaire who agreed to engage in the second phase. All participants in this phase had senior roles in their firms. Nine participants confirmed that they are the managing directors/owners of their companies. The other 3 were associate directors and explicitly responsible for the strategic management process in their firms.

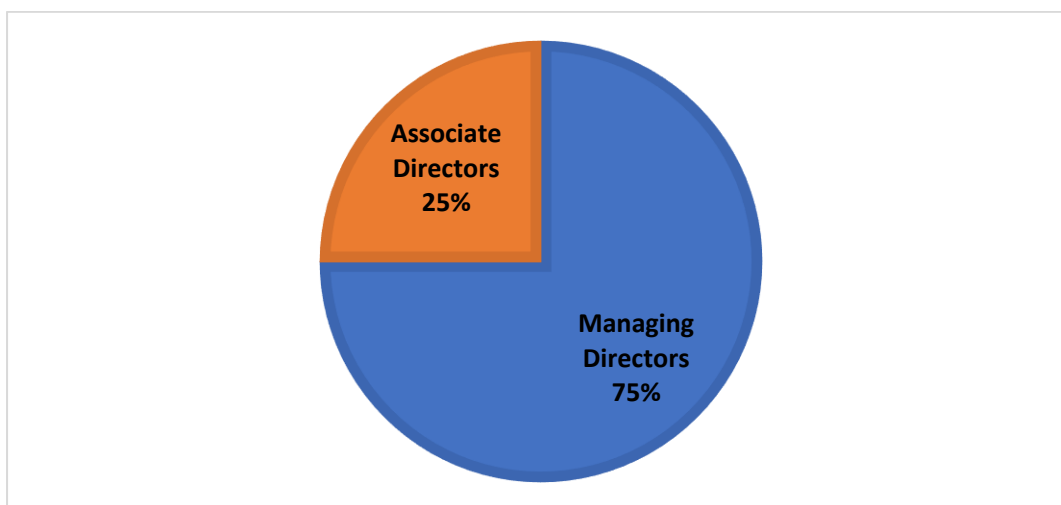


Figure 7. 24 : Current role of participants in interviews

Regarding firm size, all different sizes were represented in the second phase. It remains vital to involve all firm sizes in this phase due to the considerable differences amongst them with respect to strategic management practices. The first phase of fieldwork confirmed the existence of significant differences in strategic planning characteristics, strategic choices, strategy implementation factors, and barriers to strategizing between Irish contracting firms of different size. Therefore, the phase seeks to conduct extended discussions with senior managers within Irish contracting firms of different size to reveal the reasons behind these differences. In regard, the firm size was measured according to the number of full-time employees currently working for each company.

<b>Firm Size</b>	<b>Number of Firms</b>
Micro (1 - 9)	2
Small (10 - 49)	4
Medium (50 – 249)	2
Large (250 or more)	4

Table 7. 7: Firm size of participants in the second phase

Concerning the type of construction workload, all various kinds of construction workload were found to be undertaken by firms participating in the second phase. Nevertheless, the residential sector remains the primary sector of emphasis for most contracting firms, followed by the private non-residential sector. Finally, infrastructure projects are undertaken by a minor portion of construction firms due to the tendering and operational complexity of these projects. These

findings are consistent with those of the first stage of fieldwork. Therefore, the consistency of findings is solid proof of their validity.

	Residential	Private Non-Residential	Social Infrastructure	Productive Infrastructure	All
F1					X
F2	X	X			
F3					X
F4					X
F5		X			
F6					X
F7	X	X			
F8	X	X			
F9	X				
F10	X				
F11		X			
F12			X		

Table 7. 8: Construction workloads of firms participating in the second phase

Participating companies in the second phase were spread across various geographical locations in Ireland, such as Dublin, Wicklow, Kildare, Offaly, and Galway. Most participants based in Dublin or its suburbs confirmed an upturn of construction activity across the city.



“At the moment we are lucky because there is a bit of an upturn in the economy.” –

Firm 3

“The Irish market is obviously going through a kind of boom cycle at the moment.” –

Firm 4

Nevertheless, firms based outside Dublin expressed their frustration with the modest level of construction activity within cities away from the capital. For example, the managing director of a firm based in Galway stated the following:

“I don’t think the building business outside Dublin has had any kind of a boom since the bust. I think it’s been mostly been scraping along the bottom really.” – Firm 12

This firm, based in Galway, revealed that the modest level of construction activity outside Dublin adversely affected their chances to maintain a satisfactory level of growth over the last decade. It shifted their focus towards maintaining business survival rather than pursuing growth and development. Therefore, it can be confirmed that the geographical location of construction contracting firms in Ireland largely influences their strategic decisions and choices. The following section concentrates on the strategic choices of Irish contractors.

### 7.3.2 Strategic Choices

Participants were asked to confirm the corporate and business strategic choices of their firms. They were asked whether their companies are seeking to grow, maintain its market share, or downsize its current operations over the next five years. Table 7.15 demonstrates the corporate choice of the twelve firms participating in phase two of the research.

<b>Corporate Strategy</b>	<b>Number of Firms</b>
Growth	6
Stabilisation	3
Retrenchment	0
Combination of Growth & Stabilisation	3

Table 7. 9: Corporate strategy of participants in the second phase

Five out of six firms which confirmed that growth is their primary aim are based in Dublin. This finding asserts the direct influence of geographical location on the corporate strategy of construction firms in Ireland. Nonetheless, growth was always pursued in a controlled manner. Excessive growth has always been avoided by participating firms at all expenses due to the risks associated with substantial business growth in the turbulent construction industry.

“The key element of that was that we would grow in a controlled manner. We would not overgrow even if there were bigger opportunities in the market; we would stick to our plan. This was insisted upon by our financial advisors. If you took on too much work and if you didn’t get paid on lots of jobs quickly, then you could run out of cash. We believe we can control our central overhead at this level, and we can produce a profit.” – Firm 7

This participant thoroughly explained the reasons why construction firms avoid excessive growth since it leads to severe financial difficulties. None of the participating firms mentioned that they aim to retrench over the next five years. Therefore, the remaining six firms explicitly confirmed that their corporate strategy is either centred on stabilising their operations or a combination of stability and growth whenever possible.

The adoption of a stabilisation strategy may prove difficult in today’s world of globalisation (Švářová and Vrchota, 2014). Firms that focus on stabilising their operations struggle to

maintain their competitive advantage due to the regular increase in the number of competitors and intensity of competition. Therefore, continuous business development is deemed vital to maintaining a competitive advantage and business survival. However, the unique characteristics of the construction industry in Ireland drive numerous contracting firms towards pursuing stability of operations.

Firms pursuing stabilisation justified their selection of this corporate strategy by focusing on enhancing their profitability rather than business growth. Five participants expressed their frustration with the extremely low-profit margins of the construction projects that can be as low as 1 per cent.

“The prices are very very poor. And the tender prices are too low for the business to be sustainable.” – Firm 12

“The bigger the project, the less the margin. We worked on a €250 million job and we had a 1.1% margin on that job. It’s crazy, no sensible business would work on 1.1%. We make \$2m and we are turning over \$220m. The potential for things to go wrong will eat that €2m in five minutes.” – Firm 2

They compared profit margins across the EU to demonstrate the non-sustainable rates available in Ireland.

“you will see that the average kind of return on turnover in Ireland is somewhere between 0% and I think 1.5%-1.7%. But if you go to the UK that goes up to 5%-6%. If you go to mainland Europe, it’s up to 12%-15%.” – Firm 8

Therefore, several contractors confirmed that they prioritise profitability margins over business expansion by selecting profitable projects only.

“We are happy to grow the business as long as we have sustainable profit margins. So, we are more about profit than we are turnover.” – Firm 4

Despite the considerable growth in construction volume since the last recession in 2007, the supply of construction activity still falls far behind the overall capacity of contractors in Ireland.

“At the moment the tower crane count in Dublin is 105 tower cranes. Dublin has never been as busy. Yet competition for that work has never been as bad. So, there are contractors who are very significant size, who are competing for work with a zero profit margin. Hoping then to get a return on the extra or whatever it is. No other industry that I’m aware of would contemplate that.” – Firm 8

The gap between the supply of construction activity and the overall capacity of contractors is likely to be the primary reason for the intense competition in the Irish construction market. This level of competition considerably reduces the profit margin of construction projects; and consequently, direct firms towards pursuing stabilisation corporate strategy to survive.

“There are too many firms chasing too little work. And the prices as a result are very very poor.” – Firm 12

The study aimed to reveal the reasons behind this gap between the supply of construction projects and the capacity of contracting firms in Ireland. The following participant blamed the restrictive governmental fiscal policy for the creation of this gap.

“There is very little infrastructural work going on. The children’s hospital, that’s it. There are no other infrastructural projects really going on in the entire country. So, the state is not spending any money on anything, other than one project.” – Firm 10

The modest profitability and fierce competition within the construction industry in Ireland has a significant impact on the business strategic choices of Irish contractors. Eleven out of twelve firms confirmed that their business strategy is a combination of differentiation initiatives and low-cost operations. This finding is consistent with that of the first phase regarding the business strategy of Irish contracting firms.

Porter (1980) argued that a business firm must adopt only one generic strategy at a time. Otherwise, it will neither have a unique offering nor be able to compete effectively based on price. Nevertheless, the inherent characteristics of the construction industry in Ireland make an effective combination of differentiation and low-cost strategies necessary to maintain the competitiveness of contracting firms.

“It is inevitable to combine quality and differentiation with low-cost and efficiency because we don’t provide new products.” – Firm 7

Irish contracting firms pursue differentiation through investing in modern construction technologies (e.g. Building Information Modelling BIM), innovative materials, sustainable practices, advanced insulation systems, and off-site production. Moreover, operational efficiency remains mandatory to compete successfully for the construction projects. The integration of both differentiation and low-cost strategy also helps in maintaining a constructive relationship with clients within an industry primarily based on ‘repeat business’.

“We have to focus on the right clients. 40% of our turnover comes from just 15 clients. Yet, 60% of our margin comes from those same 15 clients.” – Firm 11

As a result, Irish construction firms confirmed that they must carefully consider their clients’ needs, gain their trust, and maintain competitive pricing to be able to negotiate rates and improve their profitability. In conclusion, the unique nature of the Irish construction industry necessitates the adoption of a hybrid business strategy. Fierce competition, along with low-profit margins, drives contracting firms to pursue innovation, as well as maintaining operational efficiency, to compete successfully for projects and secure a positive relationship with clients to maintain repeat business.

### 7.3.3 Strategic Planning Characteristics

The planning characteristics investigated in this phase were similar to those in the first phase for the validation and triangulation of the findings. Participants were asked to explain how

strategic decisions are formed in their companies in order to explore the characteristics of strategic planning in Irish contracting firms. The following table demonstrates the planning dimensions as they were coded in the NVivo software.

<b>Main Themes</b>	<b>Sub-themes</b>	<b>Description</b>
Comprehensiveness – External		This node describes the extent of exhaustiveness in gathering external information about competitors and economy prior to goal setting.
	Competitor analysis	This node contains firms that undertake competitor analysis.
	Economic analysis	This node contains firms that undertake economic analysis to explore the impact of economic changes on their firms.
Comprehensiveness – Internal		This node describes the extent of exhaustiveness in gathering internal data about the firm resources prior to goal setting.
	Human resources	This node contains firms that gather information regarding their staff.
	Machinery	This node contains firms that gather information regarding their machinery.
Participation		This node describes who participate in setting the strategic vision of the firm.
Tools and Techniques		This node describes the extent of using tools, like SWOT and PESTEL analysis, in internal and external scanning.

Formality		This node describes whether a firm has a structured process to set its strategic goals.
Documentation		This node describes whether the strategic vision of the firm is documented.
External specialists		This node describes whether a firm rely on external specialists in assisting with goal setting.
Experience with strategic planning		This node describes the experience of the construction firm with strategic planning.
Importance of strategic planning		This node describes the extent to which strategic planning is considered important for the future of the firm.
Flow		This node describes the flow of strategic decisions in the firm.

Table 7. 10: Strategic planning characteristics coded nodes

Participants were first asked to determine the extent of the importance of strategic planning for the future of their firms. There is a consensus among participating firms of all sizes on the crucial importance of strategic planning for their business survival and continued success.

“Strategic planning is really really important, whether you are doing €1.2bn or you are doing €600m, or €20m.” – Firm 2

The recognised importance of strategic planning amongst participating firms resulted in the adoption of a formal established planning process within eight out of twelve firms. This finding concurs with that of the first phase, where 58 per cent of participants confirmed the existence of a structured process to generate strategic decisions. They have a formal and structured process to generate strategic decisions and communicate these decisions with shareholders and

stakeholders.

“We always meet, on a monthly basis, to review our construction programme, budgeting and finances, certain aspects of projects planning, and opportunities that we have been looking at. So, we would do that on a monthly basis to keep everything updated amongst the various members in the company.” – Firm 10

“At every board meeting we report back on how we are doing with regard to our strategy. Also, we have strategy map days, where we take a day twice a year out to form and guide our strategy. And then we have communication days to communicate our strategy. So, we have twice a year management meeting, and four times a year we have project manager meetings. It’s to get the message down through the business, so there’s a lot of time spent on communication.” – Firm 11

Formal process and procedures for generating strategic decisions are common across Irish contracting firms. Nevertheless, the documentation of strategic decisions is limited to larger firms. Only five companies confirmed that they have a document containing the firm’s strategy. On the other hand, micro and small firms do not document their strategy and only rely on communication to share strategic decisions with employees.

“No, it wouldn’t be documented. It’s a bit easier when it’s a family business.” – Firm 10

This finding is consistent with that of the first phase, where a positive relationship was observed between firm size and documentation of strategic decisions. Moreover, it concurs with the literature on strategic planning characteristics in construction contracting firms. Findings from the British and Ghanaian markets confirmed that planning formality is positively correlated with firm size (Dansoh, 2005; Price et al., 2003). Smaller firms believe they do not need to document their strategic decisions due to the limited number of employees and shareholders within their firms. They rely on direct communication to convey strategic decisions. However,



the documentation of strategy remains important to lease with clients, stakeholders, and funding institutions. Therefore, the modest emphasis on documenting strategy within small firms remains a flaw in their strategic management practices.

The previous discussion highlighted the importance of communication in conveying strategic decisions within Irish contracting firms. In this regard, responses of participants asserted that strategic decisions within a company regularly flows from top managerial levels towards bottom operational ones. It was found that strategic plans are usually formed at senior levels then passed down to lower levels for implementation. This finding is consistent with those of the first phase of fieldwork in this study. Likewise, it is consistent with the findings of Dansoh (2005) and Price at al. (2003) across different countries. The following quote provides an example of the top-down approach to strategic planning in a large Irish contracting firm:

“The directors of the business decide the company’s strategy.” – Firm 9

“Our strategic decisions come from just the two directors.” – Firm 5

Although top-down flow is evident in nine firms, two large and one medium firm confirmed that they adopt a combined approach which integrates top-down and bottom-up initiatives. Desai (2000) observed that bottom-up flow is the norm among firms facing severe competitive pressures like contracting firms operating in the Irish market. Therefore, several Irish firms, especially larger ones, adopted a combined approach to rely on the feedback of their project, programme, and functional managers to update their strategy in response to market changes.

Another relevant dimension to flow is participation in the strategic planning process. Six participants confirmed the substantial importance of engaging lower managerial levels in strategic planning due to their direct interaction with clients and suppliers. They asserted the participation of lower managers/directors in the strategic planning process within their firms. On the other hand, the other six managing directors either seek the advice of lower employees

from time-to-time or totally dismiss their input in strategic planning. Scholars, such as Kachaner et al. (2016) and Song et al. (2015), agreed that the engagement of employees in strategic planning raises their commitment to strategy implementation. Therefore, it can be concluded that the level of participation in strategic planning within Irish contracting firms remains modest and requires further attention.

Another surprising finding is the modest attention devoted to the use of planning tools and techniques across the participating firms. This finding concurs with that of the first phase of fieldwork regarding the use of tools in environmental scanning. A managing director of a large construction firm expressed the importance of using these tools during the planning process. He demonstrated that the strategic goals of his company are formed according to Balanced Scorecard, which combines financial targets, operational objectives, and clients' requirements.

“Our strategy is built around that Balanced Scorecard. We set ourselves an objective as to what turnover we want to do at what margin, and then we work around the clients that we need to do that, the processes that we need to support those clients and then the people we need to support those processes. That’s our strategy, and it has worked very well.” – Firm 11

However, only three participants, two large and one small company, confirmed that they actively rely on tools and techniques in the planning process.

Regarding planning comprehensiveness, it was found that firms were exhaustive in gathering information regarding their internal resources. Seven companies asserted that they systematically gather information relating to their staff and plant, while the remaining firms gather relevant information in an ad-hoc manner. For example, one participant confirmed the following:

“Well, we have a full spectrum of information about our resources.” – Firm 2

Furthermore, another managing director stated the following:

“We have an HR system, which is used for managing all of our people-related issues.”

– Firm 4

Also, another senior director indicated the following regarding his machinery stock:

“So, the likes of machinery and plant are something that is always a constant. It is a sort of working thing, that you have a plant register; so, machinery has to be kept certificated, to make sure that you have your plant and that it is in good working order or machinery that needs to be serviced.” – Firm 10

Concerning external information, the extent of gathering information relating to the economy and competitors was found to be scarce among the study sample. Only two firms are exhaustive in gathering information about the business environment before undertaking strategic decisions. The remaining firms either rely on informal sources of information (e.g. newspapers), or do not conduct external market analysis.

A managing director of a large firm that has proven proficiency in strategic planning stated the following:

“Yeah, we are good, but we could be better to be honest with you. And it’s something we are getting better at it, but we are not there yet.” – Firm 11

Also, another participant who explained the informal approach he relies on to gather external information:

“General information that’s out there either on the internet or in the newspapers, about where things are.” – Firm 2

This finding is surprising due to the reported high degree of market turbulence affecting the initiating of strategic plans in Irish contracting firms. Irish contractors in the first phase confirmed that market turbulence is the primary barrier to strategizing. Nevertheless, both

phases of fieldwork ascertained that they provide modest attention to the systematic gathering and analysis of reliable information about the economy, government legislation, and competitors to inform strategic decisions. Modest attention to the external environment is a clear sign of imperfection in strategic planning within Irish contracting firms.

The prevalent state of market turbulence has driven Irish contractors towards adopting a planned-emergent approach to strategic planning. It was posited in the literature review that a planned-emergent approach can be best suited for strategy making in turbulent environments. A strategy can be planned by forecasting incremental developments in the value chain and products/services of the industry. Moreover, emergent strategic initiatives can redirect a strategic direction of a business firm in response to unprecedented environmental changes. Findings of the second phase supported the argument mentioned above since all participants asserted the adoption of a planned-emergent approach to maintaining alignment between their businesses and the environment.

“Changes in market and market volatility dictate the pace you change your strategy at. Because there’s no point adopting a strategy and the environment changes, and all of a sudden, your strategy doesn’t match the environment. So as a business we have been quite nimble at changing our strategy and adapting it to the changing environment.” –

Firm 11

The dominance of the ‘planned-emergent’ approach to strategic planning among Irish contractors was justified by the prevalent state of environment turbulence in the Irish construction industry. Five participants listed market uncertainty and cyclicity as the primary challenge to strategic planning in their business firms.

“When you look at the UK, the UK has peaks and troughs, but those peaks and troughs are kind of 5%-10%. In Ireland they are 30% or 40%, so it makes it incredibly difficult for firms like us to do strategic planning.” Firm – 4

Moreover, seven participants stressed on the destructive impact of the last economic recession on their businesses; they confirmed that the implications of that crash are still affecting their businesses till now.

“Definitely the market is not stable yet. We still have some of the hangovers of the last crash.” – Firm 1

A consequence of the 2007 recession is a skills shortage that remains a critical issue facing Irish contractors. Several participants confirmed that it is incredibly difficult to secure enough staff with decent skills level to cover all construction activity running in their companies. The following respondent explained the relationship between the last economic recession and staff shortage:

“There is a shortage of skilled labour in the industry in Ireland at the moment. A lot of people following the last recession 10/12 years ago left the country. And colleges were not producing any new apprentices or graduates because there was no work in the industry. So, people were not entering the industry. But now as things have recovered, there is a major shortage of skilled labour.” – Firm 9

The presence of skills shortage may contradict with the gap between construction activity supply and capacity of contracting firms. A participant sought to explain this discrepancy:

“I think some skilled labour is in short supply. Now, you might think that contradicts what I said about no recovery in the building industry here in this part of the country. But it doesn’t really, because so many fellas have given up the trades and they have

gone into other jobs and they are not going to go back to the building industry. Because of the uncertainties and they would prefer to take less every week for more certainty. Also, young people are not going into the building industry because of all those reasons, the uncertainty. It is not an attractive industry for someone to build a career in.” – Firm 12

Another issue facing Irish contractors since the last recession lies in the complexity of raising capital from Irish banks. Seven participants ascertained the difficulty of appealing Irish funding institutions due to the severe restrictions set by the central bank in Ireland.

“Previous to 2007, most of our projects that were funded out of Irish resources. That is now no longer at play; any of the funding that is occurring for any project that is going on at the moment is coming from the global market.” – Firm 10

Raising capital from international financial institutions leaves Irish contracting firms vulnerable to any global economic or political changes that can limit their access to international funding, as a participant confirmed:

“So, Brexit then brings a whole new stress test to our game. It is far more difficult right now to get finance from the UK” – Firm 8

Nevertheless, they believe that Irish funding institutions are not capable of securing their funding demands.

“Because anything could happen that could pull that finance, the only source of finance really that is out there. Irish banking is not yet in a proper position to be able to offer finance competitively.” – Firm 10

The complexity of raising capital from Irish banks was reasoned by the conservative monetary

policy set by the Irish central bank. This policy seeks to avoid the occurrence of any future economic recession. Nonetheless, six participants expressed their concerns about an upcoming economic crash that may obstruct their businesses.

“There is an inevitable correction going to come in the market. Whether that comes because of uncertainties in world trade, comes because of Donald Trump and trade wars, whether it comes as part of Brexit, or it comes as part of a general EU downturn or sluggish growth, I don’t know.” – Firm 7

Managing directors believe that a future economic downturn is inevitable due to the cyclic nature of the construction industry in Ireland. Therefore, the dominance of planned-emergent approach to strategic planning was deemed necessary to align their strategic plans with the regularly changing market conditions.

The adoption of a planned-emergent approach requires consistent scanning/analysis of market-based information. However, the modest emphasis placed on gathering external information can obstruct aligning the strategic plans of Irish contractors with the regularly changing business environment. Limited attention to planning comprehensiveness, participation, and use of planning tools reflect the modest experience of Irish contracting firms with strategic planning, despite the critical importance of the process. As the managing director of one of the largest contracting firms in Ireland stated:

“We don’t have the experience of how to start a strategic plan with a blank sheet of paper.” – Firm 7

Therefore, senior directors of Irish contracting firms need assistance with the development of strategic plans that suits the contemporary turbulent environment. The study in hands aims to address this discrepancy by developing a framework that guides Irish contracting through all the stages of strategy formulation and implementation in light of the prevalent challenges.

#### 7.3.4 Strategy Implementation Process

The process of strategy implementation in Irish contracting firms widely varies according to company size. Large firms usually rely on their organisational structure, management systems and processes to execute strategy. As a senior manager of a large firm explained how they pursue strategy implementation:

“The structure is very hierarchical. From the board of directors, there are regional directors, then we have the CEO, also we have employed a number of directors. So, from that comes the less senior board if you like; the people who actually do the work. And below them there are area managers. So, it’s always reporting back up.

How is this policy being implemented there? How is it effective?” – Firm 1

Large firms are concerned about the suitability of their organisational structure to implement the firm strategy. As advised by Chandler (1962), the development of a new strategy requires the amendment of the company’s organisational structure to implement strategy effectively.

“Then we look at the structure that we have. Do we need to change that structure?” –

Firm 7

Four medium and large companies confirmed that the key to successful strategy implementation is their staff. As briefly demonstrated by a director of a large company on how they implement strategy:

“We put the right managers in the right place.” – Firm 1

However, these companies stated that top management remains primarily responsible for the strategy implementation process within their firms. Therefore, there could be a contradiction between their reliance on lower managers for strategy implementation and holding the responsibility for the implementation process.



Other medium and large firms may primarily rely on their systems and processes to execute strategy, such as communication, quality control, procurement, recruitment, and operational processes.

“You are talking about improving our systems and our tools and processes that support the strategy implementation function. And then shifting the culture around how we perceive planning and the importance of planning in our company.” – Firm 4

The communication system remains the pivotal system/process for strategy implementation across contracting firms. Ten firms confirmed that they actively rely on communication to inform lower managerial levels with the company’s strategic goals, primary objectives, and pursued targets. Likewise, communication is needed to report back implementation results to top management. However, effective communication is challenged by the project-based nature of contracting firms. Construction projects are dispersed across various geographical locations and undertaken by temporary teams. Therefore, maintaining effective communication demands advanced processes that can overcome these challenges.

Within small and micro firms, strategy implementation is pursued through two main processes: communication and setting targets. Strategic goals formed by managing directors are communicated to the few employees within the company, then targets are set to monitor the implementation performance. The following table summarises the responses of several directors of small and micro firms:

Quote	Firm
We have KPI up to the back teeth.	11
There is a clear set of milestone deliverables: financial objectives and KPI.	4

We would set the targets for each quarter, and then at the end of that we look at them to see how we are.	6
Usually they are financial targets.	9

Table 7. 11: Quotes of participants on targets

Surprisingly, resources were only mentioned by one managing director as a primary factor for strategy implementation. Despite the extensive focus on internal analysis during strategic planning, directors devote limited attention to the utilisation and exploitation of internal resources throughout the strategy implementation process. The limited emphasis on internal resources contradicts with their assertion that budget constraints and the skills shortage are primary barriers to strategy implementation within their firms.

The resource-based view is the dominant theory among contracting firms across the globe due to the labour and capital intensity of the construction process contracting firms (Phua, 2006; Chew et al. 2008; Li and Ling; 2012; Teo and Runeson, 2012). Contractors are then usually engrossed in the acquisition of exceptional and scarce resources to leverage their operational efficiency and surpass competitors (Chew et al. 2008). The findings of Chew et al. (2008) confirmed that limiting the scope of strategic management to aligning a firm's resources with market demand serves as a precondition for superior performance. However, this was found to be not the case within construction contracting firms in Ireland. Modest attention is devoted to their resources throughout the implementation process. Therefore, there is a crucial need to rethink the primary factors that form the strategy implementation process within Irish contracting firms.

### 7.3.5 Alignment between Strategy Formulation and Implementation

The strategic management literature confirmed the presence of a gap between strategic planning and strategy implementation in project-based firms (Johnson et al., 2008; Morris and Jamieson, 2004; Wit and Meyer, 2004). It was posited that the processes of individual projects are rarely aligned with the strategic objectives of these firms (Thiry and Deguire, 2007). However, the research participants confirmed that they do not face any issues aligning the strategies of their firms with individual construction projects.

Ten participants ascertained that projects are always selected according to the overriding strategic objectives of the company. The following managing director demonstrated that his company rejects numerous projects because they do not fit with their strategic goals:

“We would get unsolicited calls from clients asking us would we be interested in a project that simply wouldn’t suit the company in terms of nature, timescale, size, or complexity. So, we say no to a lot of projects.” – Firm 5

Another participant stated a similar quote:

“We are going to be saying, we can’t afford to take that, because it will push us above our limits, and we won’t have capacity for that.” – Firm 7

Likely, the negative experiences associated with the last economic recession as well as the tight profit margins are driving managers to be very selective with construction projects.

Similarly, eight participants confirmed that projects planning and resources allocation are highly aligned with their overriding goals. Innovative systems, modern designs, speedy operations are always introduced by contractors to match the business strategy set by the company. Likewise, staff are always recruited and deployed to individual projects according to their previous experiences with similar projects aiming to achieve similar performance. Managing directors work on standardising operational processes, fixing operational teams, and

practice high control over the delivery of individual projects to ensure their alignment with the company's strategy. Therefore, senior managers confirmed that they do not struggle with aligning corporate planning and construction projects planning.

#### 7.4 Synthesis and Discussion

A number of findings from phase one of the research were confirmed and triangulated in phase two. Respondents in both phases of fieldwork hold senior managerial positions and largely contribute to strategic decision-making in their firms. Likewise, the vast majority of participating firms were found to be private limited liability companies. A major benefit of this company type lies in distinguishing between the entrepreneur and the business entity in terms of risks and debts incurred. Construction contracting companies largely benefit of this advantage due to the high risks associated with construction business.

It was observed that Irish contracting firms have downsized over the last ten years. As confirmed by respondents in the second phase, modest profit margins and high operational risks restrict their ambition to grow their businesses. Nevertheless, they asserted that stabilisation is their primary strategic goal over the course of the next five years. Most of participating firms are not planning to downsize their operations due to the prevalent positive economic conditions.

It was found that firm size is the primary determinate of the extent of strategic planning formality in Irish contracting firms. While strategic planning is highly formalised in larger firms, it is usually informal and intuitive in smaller ones. Similarly, firm size largely determines the strategic type of Irish contractors. Large firms are inclined to be 'prospectors' who are leading change within the market. On the other hand, smaller firms are usually 'reactors' who respond to market changes without a predetermined strategic vision.

Regarding the strategic planning approach, a ‘planned-emergent’ was found to be dominant across all firms. Although a considerable percentage of firms confirmed in the first phase that their approach is ‘planned’, it was found in the second phase that these firms regularly update their strategic plans in response to environmental changes. Therefore, the extensive discussion with strategists in phase two revealed that they adopt a ‘planned-emergent’ approach even though they think their approach is a ‘planned’ one.

The two phases of fieldwork ascertained that the flow of strategic decisions is ‘top-down’ flow. Limited participation in strategic planning from lower hierarchical has been observed. Likewise, Irish contractors place limited emphasis on the gathering and analysis of information pertaining to possessed resources, competitors, market-based factors, and macro-economic factors. The modest attention devoted to information gathering and analysis contradicts with the reported barriers to strategizing, market turbulence and lack of resources.

Regarding strategy implementation, larger firms mainly rely on management systems, business processes, and organisational structure to implement strategy. On the other hand, smaller firms primarily depend on communication and setting targets to transform their strategic goals into action plans. Firm size also has a significant role in determining the strategic type of Irish contracting firms. Larger firms are more likely to be ‘prospectors’ who lead change within the industry, contrary to smaller firms that are more likely to react to market changes. Likewise, both phases of fieldwork ascertained that business survival is the primary long-term aim for Irish contractors due to the prevalent turbulent business environment and low profit margins of construction projects.

## 7.5 Summary

The above findings refer to a critical contradiction within the strategic planning process of Irish contracting. Participants asserted the importance of strategic planning to maintain business survival. They expressed their concerns about a future economic recession that may destruct their businesses. Likewise, participants confirmed the importance of a ‘planned-emergent’ approach for adapting their businesses with market conditions. However, they have demonstrated modest emphasis on the systematic analysis of market-based information and provided little attention to using planning tools for analysing gather data. Therefore, the strategic decisions of Irish contractors are likely to be based on intuition and experience rather than being evidence-based decisions based on facts.

Another critical finding is the limited importance devoted to possessed resources in the strategy implementation process. The above findings, along with the assertions of participants, proved a modest level of experience with strategic planning and implementation among the principals of Irish contracting firms. Therefore, there is a crucial need for the development of a framework to guide Irish contractors through the planning of strategy, with respect to the unique characteristics of the construction industry in Ireland.

## Chapter 8. Strategic Management Framework for Irish Construction Contracting Firms

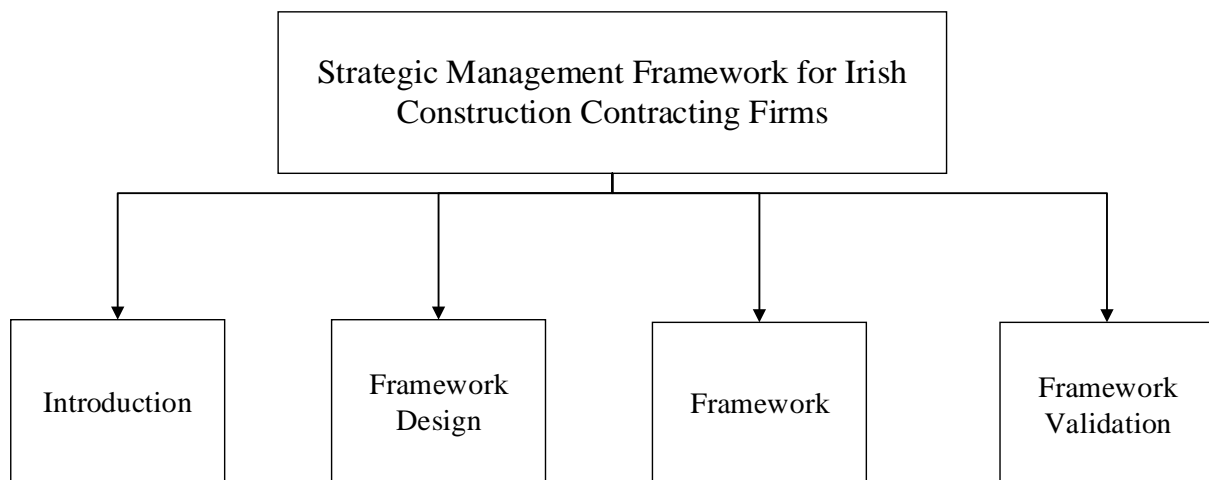


Figure 8. 1: Map of chapter 8

### 8.1 Introduction

The preceding analysis has ascertained the limited experience of senior directors within Irish contracting firms with strategic planning. Research findings confirmed that the application of strategic planning in Irish contracting firms is still at its preliminary stages, especially in smaller firms. Despite the importance of strategic planning, the majority of contracting firms do not adopt a structured and systematic mechanism to generate strategic decisions. Strategic decisions in Irish contracting firms are mainly undertaken through principals according to their experiences and interests. Meanwhile, a modest emphasis is placed on gathering industry-based information, formalising the planning process, engaging lower managerial levels in strategic planning, and using planning tools to conduct internal/external analysis (see section 7.2.2.3). Poor strategic planning practices leave Irish contractors vulnerable to any future economic recession. While 23 per cent of Irish contractors did not survive the last economic recession in 2007, the preparedness of contractors to any future economic slowdown can be put into question (DKM, 2016).

There is a critical gap between the acknowledged importance of strategic planning among contracting firms and the extent of their experience with the process. All participants during the fieldwork phase stressed on the importance of strategic planning for the future of their businesses. However, the research findings demonstrated a lack of sufficient knowledge with the characteristics, components, and applications of strategic planning in business practice. As a chief executive officer (CEO) of one of the largest contracting firms in Ireland confirmed: “We do not have the experience of how to start a strategic plan with a blank sheet of paper.”, it is the case that contracting companies need academic guidance and assistance towards developing and implementing their strategic plans. Therefore, the study in hand aims to develop a strategic planning framework to guide Irish contracting firms through the strategy formulation and implementation processes.

Participants in the second phase of fieldwork were asked if they would benefit from a strategic management framework. They confirmed that a framework tailored to the Irish construction industry is eminently beneficial to guide their strategic planning and implementation processes. Moreover, they agreed to participate in the third phase of fieldwork, in which they will provide their feedback on the usefulness, clarity, and applicability of the developed framework.

Several dynamic capabilities frameworks have been developed over the past few decades. A recent example is the framework developed by Teece (2018) to connect strategic planning with the business model of firms.



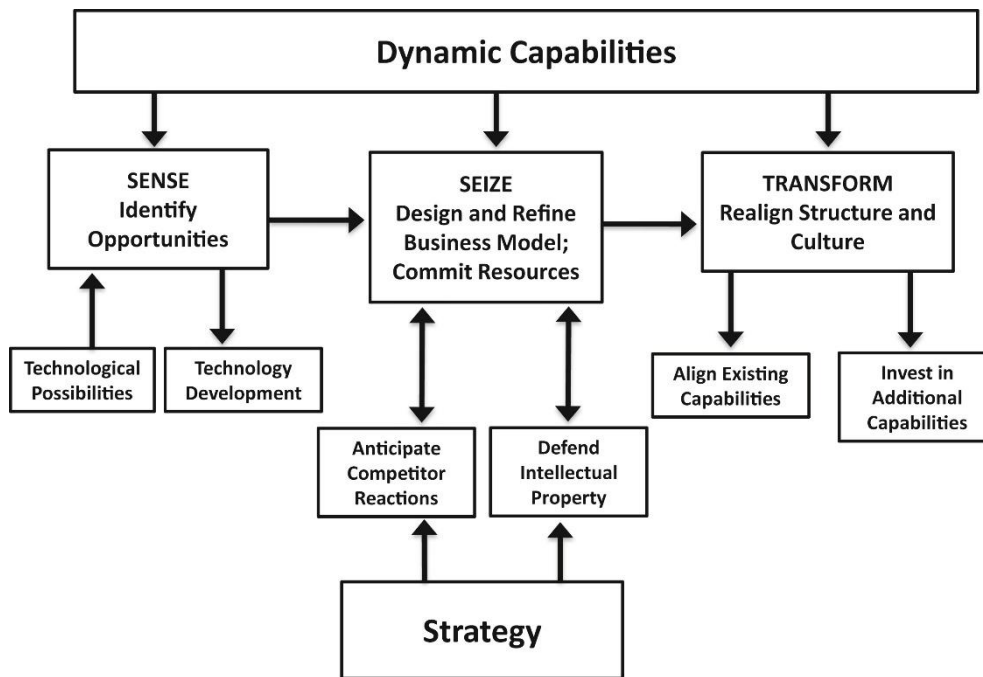


Figure 8. 2: Simplified schema of dynamic capabilities, business models, and strategy (Teece, 2018)

Although the above framework provided comprehensive mapping for the strategic planning process in business firms, it can be criticised for several reasons. Firstly, strategic planning was treated as a linear process. Nevertheless, strategic planning in recent times shall be considered an iterative process that is regularly fuelled with the feedback gained through past experiences. Moreover, the developed framework was generic in nature, it was not tailored to cope specific industries considering their inherent characteristics and prevalent challenges. Therefore, there was a crucial need of developing a modern framework which addresses these shortcomings.

## 8.2 Framework Design

The adaptation of a construction contracting firm to environmental uncertainty requires a concurrent methodological approach to revamp the strategic management process (Flemming, 2014). A framework provides the necessary support to guide the formulation and implementation of strategy in the Irish construction industry. Pereverza et al. (2019) defined a framework to be a structure or a system that aims to realise a certain result. Moreover, the

framework development process was guided by the 3-concept approach proposed by Pereverza et al. (2019). They posited that the design of a long-term planning framework has to consider three fundamental concepts: modularity, participatory modelling, and transdisciplinary. The following table provides a detailed explanation for these concepts.

<b>Principle</b>	<b>Description</b>	<b>Importance</b>
Modularity	Decomposition into modules accounting for properties of splitting, exclusion, augmentation, substitution, inverting and porting.	Adaptability and scalability to specific conditions and limitations.
Participatory modelling	Purposeful learning process for action that engages knowledge of stakeholders to create formalised and shared representation of reality.	Improved understanding of a system's (business environment) interactions and behaviour, value-neutral platforms for stakeholders to contribute information regarding the system.
Transdisciplinary	Collaborative approaches through the whole process, from problem definition to design action plans.	Integration and differentiation of knowledge from various bodies of knowledge

Table 8.1: Fundamental concepts of framework development (Pereverza et al., 2019)

The concept of modularity was applied to the framework design in order to address the need for adaptability to the specific Irish construction industry conditions and scalability to different firms' size. Modularity, in this context, involved the decomposition of the framework into separate modules characterised by the interdependence of decisions within these modules (Baldwin et al., 2014). When applied to the framework design, modularity enables the following properties:

- Splitting: the possibility to split a framework into several modules.
- Exclusion: the possibility to select subsets of modules, excluding those not required or not feasible for a contracting firm.
- Augmentation: the possibility to add a module to give a new type of functionality.
- Substitution: the possibility to upgrade existing modules.

Through these design properties, modularisation of strategic management framework in the construction sector can support (a) clearer framework design to facilitate effective application in practice, (b) compatibility with the skills of participants and to the time, budget and, other preconditions of the strategic planning and implementation processes; (c) the capability to expand over time and add new extensions and upgrades in terms of new methods and acquired skills; and (d) the motivation to continue participating in the strategic management process because of successful experiences during previous modules.

The second concept, participatory modelling, refers to engaging the implicit and explicit knowledge of shareholders to create formalised and shared representation of reality (Dreyer and Renn, 2011). Use of participatory modelling provides a number of relevant insights for the design of a framework which integrates analytical methods and a participatory process, including suitable modelling tools, methods to analyse data, and model application to decision

making (Voinov and Gaddis, 2008). Tools that can be associated with participatory modelling in a strategic planning context are Porter's (1980) 5 forces model, SWOT analysis, Balanced Scorecard, and PESTEL analysis. Likewise, Scenario planning is a useful approach for scenario development and selection within participatory long-term planning process in the turbulent Irish construction industry.

The main purposes of participatory modelling are collaborative learning, integrating valuable inputs from stakeholders, decision-making, and mediation between participants in the strategic decision-making process (Basco-Carrera et al., 2017). Appropriate application of participatory modelling to the strategic management process in Irish contracting firms would allow for (a) integration of scientific knowledge with local knowledge through provision of an objective, value-neutral, place for a diverse group of stakeholders to contribute information regarding the internal company's system and exterior business environment (Voinov and Gaddis, 2008) (b) facilitation of the learning process across internal actors about the internal company system's interactions and behaviour.

The last concept, transdisciplinary, can be defined as an integrative scientific principle aiming at the solution of problems by integrating knowledge from various scientific and societal bodies of knowledge (Lang et al., 2012). Implementation of transdisciplinary involves a high level of collaboration from internal stakeholders, external specialists, as well as reports and publications of professional bodies throughout the whole planning process. Incorporation of transdisciplinary into framework design is beneficial for strategic planning in Irish contracting firms through enabling and advancing collaboration between diverse internal/external stakeholders and encouraging bottom-up initiatives in the planning process. Fieldwork findings ascertained the modest emphasis placed by Irish contractors on gathering and analysing external information during strategic planning. Therefore, transdisciplinary is vital to transform

the model of strategic decision-making in Irish contracting firms towards evidence-based decisions instead of decision-making based on intuition and experience.

### 8.3 Framework

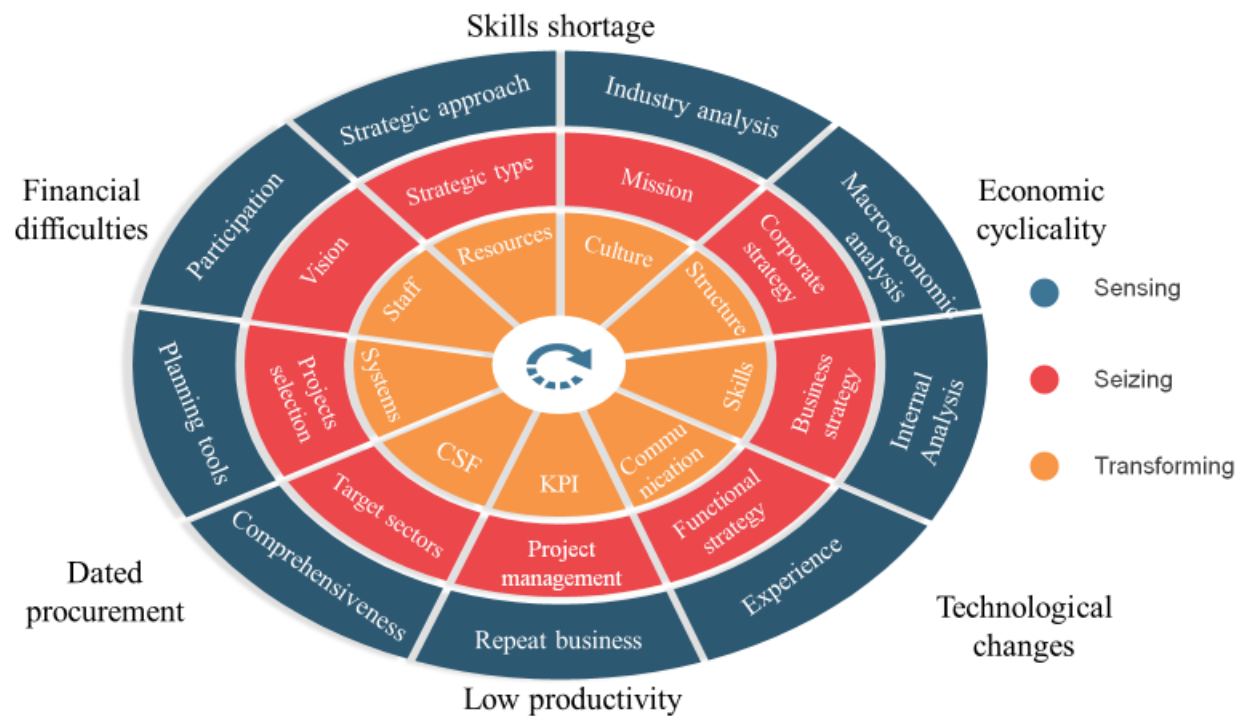


Figure 8. 3: Strategic management framework for construction contracting firms in Ireland

Layer No.	Layer Topic	Layer Content
1	<p><b>Challenges</b></p> <p>key challenges facing construction contracting firms in Ireland</p>	<ul style="list-style-type: none"> <li>• Skills shortage: shortage of skilled and experienced labour and engineers.</li> <li>• Economic cyclicality: severe and rapid changes in the demand for construction project related to changes in the economic cycle.</li> <li>• Low productivity: modest rates of construction productivity prevalent in the industry.</li> <li>• Procurement system: the dominance of the design-bid-build method, which raises upfront costs and restricts innovation.</li> </ul>

		<ul style="list-style-type: none"> <li>• Financial difficulties: the complexity of raising capital from domestic and internal financial institutions to fund construction projects.</li> <li>• Digitalisation: coping with the implications of the fast face of digital transformation within the construction industry across the globe.</li> </ul>
2	<p><b>Sensing</b></p> <p>Methods of sensing opportunities and threats in the business environment</p>	<ul style="list-style-type: none"> <li>• Industry analysis: tracking trends within the industry such as planning permissions, public regulations, industry growth, technological changes, new market entrants, and suppliers.</li> <li>• Macro-economic analysis: tracking key economic indicators such as inflation, interest rate, gross domestic product, unemployment rates, government expenditures plans, and political stability.</li> <li>• Internal analysis: analysing key internal factors such as strengths and weaknesses, opportunities and threats, factors of production (machinery, land, capital, labour, etc.), resources (skills, knowledge, experience, etc.), value/rarity/imitability/coherence of resources, internal systems and processes, and organisational structure.</li> <li>• Experience: reliance on the personal experience of managing directors in determining business opportunities and threats.</li> <li>• Repeat business: securing repeat business with clients by maintaining a constructive relationship with clients through following up with previous clients and soliciting their feedback, ensuring reliable communication with clients, and developing a marketing plan.</li> <li>• Comprehensiveness: the exhaustive gathering of internal and external information prior to the development of strategy.</li> <li>• Planning tools: incorporate tools and techniques to facilitate the collection and analysis of data. Examples of planning tools are SWOT, PESTEL, balanced scorecard, core competencies, scenario planning, and strategic group mapping.</li> <li>• Participation: encouraging broad participation in the strategic planning process from all managerial levels.</li> <li>• Strategic approach: determine an approach to formulating strategy, whether a strategy is planned in a rational manner, emerge in response to</li> </ul>

		environmental changes, or a combination between planned and emergent approaches.
3	<p><b>Seizing</b></p> <p>Methods of seizing business opportunities to develop a sustainable competitive advantage</p>	<ul style="list-style-type: none"> <li>• Mission: the purpose of existence for the construction firm, including its objectives and values.</li> <li>• Vision: the desired future state of the firm.</li> <li>• Strategic type: how the contracting firm aims to compete in the construction market, whether it is prospector, analyser, defender, or reactor.</li> <li>• Corporate strategy: establish the direction of the company, division of business units, and mode of operation (i.e. growth, stability, or retrenchment).</li> <li>• Business strategy: accomplishing the corporate strategy by identifying the strategic scope (e.g. offered products/services) as well as determining competitive (e.g. differentiation/low cost/focus) and cooperative (e.g. merger/ acquisition/cooperation) initiatives to acquire a competitive advantage.</li> <li>• Functional strategy: accomplishing the business strategy by setting goals to every department and functional area within a contracting firm.</li> <li>• Target sectors: defines the target construction sectors (e.g. residential, commercial, industrial, infrastructure).</li> <li>• Projects selection: the selection of construction projects according to the strategy of the firm.</li> <li>• Project management: maintain the alignment between the planning of construction projects and business strategy.</li> </ul>
4	<p><b>Transforming</b></p> <p>enhancing, combining, protecting, and reconfiguring intangible and tangible assets to maintain the</p>	<ul style="list-style-type: none"> <li>• Resources and Staff: providing sufficient resources and staff to implement strategy effectively.</li> <li>• Structure: aligning the design of the organisational structure with the strategy of the firm.</li> <li>• Skills: broaden the range of skills of staff in line with construction planning, legal aspects, sustainable development, value management, and customer relationship management.</li> </ul>

sustainability of competitive advantage	<ul style="list-style-type: none"> <li>• Systems: developing advanced operational systems (e.g. financial, resources, quality assurance) to provide maximised value to customers and stakeholders.</li> <li>• Culture: reliance on the role of leadership in developing a commitment of staff to the implementation of strategy.</li> <li>• Communication: effective multi-way communication across all hierarchical levels to ensure that organisational members are fully aware of the strategic goals and vision of the firm.</li> <li>• CSF: developing critical success factors to measure strategic performance.</li> <li>• KPI: developing key performance indicators to benchmark the operational performance of construction projects and its contribution to the achievement of strategic goals.</li> </ul>
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Table 8.2: Augmented Framework

The design of the framework reflects the key pillars of the dynamic capabilities theory (i.e. sensing, seizing, and transforming) proposed by Teece et al. (1997). The theory of dynamic capabilities was considered the lens applied to explore the strategic management process in Irish contracting firms due to the congruence of the theory with the construction industry in Ireland.

Several reasons justify the compatibility between the dynamic capabilities theory and strategic management in construction contracting firms. Firstly, performance differences between firms largely stem from firm-based factors rather than industry effects. Superior performance in contracting firms results from having markedly lower operational costs and offering higher quality instead of deterring new entrants or targeting sub-sectors that offer above-average return. The complexity of constructing barriers to entry in the construction industry mandates the focus on raising operational efficiency and production quality. Similarly, moving from one sub-sector to another is a complex process that requires non-tradable tacit knowledge and



massive investments. The study findings supported this argument ascertained that hybrid business strategy is dominant across all construction contracting firms in pursuit of superior performance. Therefore, it can be concluded that firm-based factors have a paramount role in determining firm performance when compared to industry-based factors (e.g. market structure).

The prominent role of firm-based factors in determining firm performance demands considerable attention from Irish contracting firms to their internal resources and capabilities. It is posited in the above framework that a construction firm needs to focus on planning comprehensiveness, industry analysis, internal analysis, macro-economic analysis, participation of staff, and experience to sense business opportunities and threats. The framework highlighted several challenges defined by construction contracting firms as critical and largely influencing their strategies. Moreover, identified opportunities should be seized by developing alignment between them and the firm's mission, vision, corporate strategy, business strategy, and construction projects management. Aligning a firm's strategic aim with external opportunities/threats require transforming internal systems, processes, culture, and structure with the new strategic plan.

A central theme of the framework lies in viewing strategic management as an iterative process rather than a linear one. Senior managers have to regularly analyse the strategic performance of their firms in order to update a company's strategy according to environmental changes. Hence, feedback on strategic performance can provide lessons learned for the following strategy formulation and implementation processes.

The framework is primarily developed to be applied in Irish construction contracting firms. Nevertheless, it remains applicable to construction contractors operating in other countries. The literature review clarified that the highlighted challenges are prevalent in construction markets

across the globe. Therefore, construction firms in foreign countries can benefit from the developed framework to maintain their competitiveness and business survival.

The modularity of the framework design aimed to facilitate the application of the developed framework within other industries. The framework is deemed highly relevant to project-based companies operating in turbulent environment (e.g. oil and high-tech companies). The challenges layer can be amended to include relevant challenges facing firms operating in different industries. However, the remaining layers are highly relevant to project-based firms aiming to approach strategic planning and implementation through a dynamic capabilities lens.

#### 8.4 Framework Validation

The framework was returned to interview participants for external validation. Participants in the second phase of fieldwork were solicited to provide feedback regarding the developed framework. An online questionnaire was disseminated to the twelve participants along with the framework to provide their opinions regarding the framework's clarity, relevance to strategy formulation and implementation in their firms, the potential use of it in guiding the strategic management process within their firms (Appendix G). Finally, participants were asked to advise if any elements are irrelevant and should be removed, or any elements that can be added to the framework.

Five participants completed the online questionnaire, representing a 42 per cent rate of completion. Their responses were highly positive concerning the clarity, relevance, and potential application of the framework in their firms. They all strongly agreed, or agreed, on the following:

1. The framework is designed to be easily understood by business practitioners.
2. The framework contains relevant components to the strategy formulation and implementation processes within their firms.

3. The framework is of a considerable benefit to the strategy formulation and implementation processes within their firms.
4. The framework does not contain any unnecessary elements.

However, one participant suggested that ‘technological changes’ should be added to the framework since it is an overriding disrupting factor. Therefore, ‘digitalisation’ was replaced with ‘technological changes’ in pursuit of comprehensiveness and clarity.

## Chapter 9. Conclusion and Recommendations

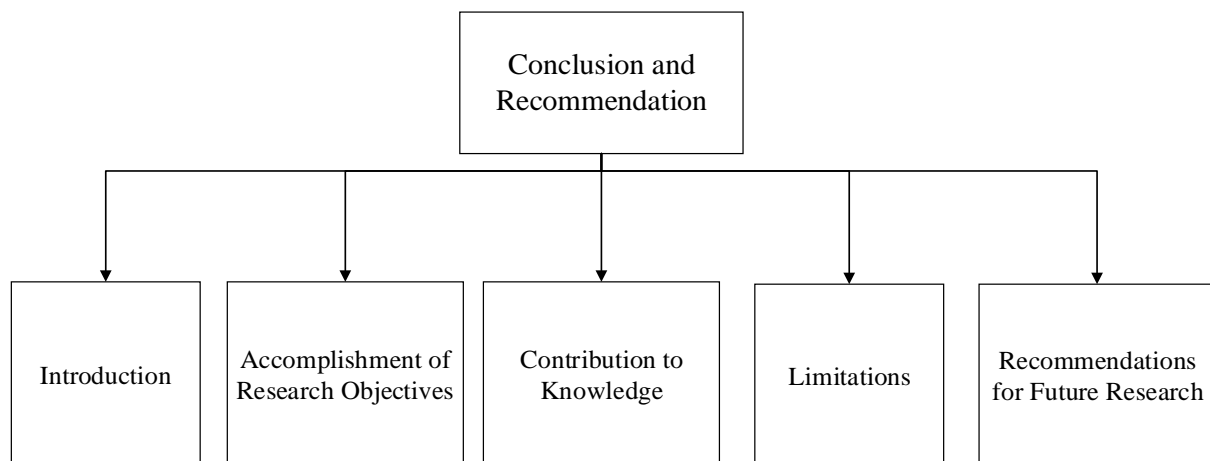


Figure 9. 1: Map of chapter 9

### 9.1 Introduction

Construction is a strategically important industry for the Republic of Ireland. Its importance lies in the immense contribution to economic growth and employment. Contractors form the cornerstone of the construction industry due to their huge turnover and number of employees. As a result, the survival of contracting firms is considered a national priority to continue contributing economically and socially.

Strategic management is essential to maintain the survival of contracting firms operating in the prevalent turbulent business environment. The study findings ascertained the vital role of strategic management in aligning business objectives with industrial and economic changes. However, there remains a dearth of empirical studies undertaken on the strategic management process within contracting firms in Ireland.

This study, with the support of the CIF, aimed to address this gap in knowledge. The findings have provided considerable insights into this under-investigated area. Research findings aimed to answer the following research question:

How can project-based construction contracting firms in Ireland ensure the successful implementation of strategic decisions within the turbulent construction industry environment?

The primary aim of the study was to develop a framework for the integration of the strategy formulation and implementation processes in project-based construction contracting firms in Ireland.

This aim was achieved by accomplishing the following objectives, all within the context of project-based construction contracting firms in Ireland:

1. To explore the characteristics of the strategy formulation in construction contracting firms in Ireland.
2. To determine the key components of the strategy implementation process in construction contracting firms in Ireland.
3. To ascertain the strategic type and choices of construction contracting firms in Ireland.
4. To investigate barriers to the strategy formulation and implementation processes in construction firms operating in the Irish turbulent industry environment.
5. To develop a framework for the formulation and implementation of strategic decisions in construction contracting firms operating within the turbulent Irish environment.

In this concluding section, the key theoretical contributions and implications of the study are discussed. Following the presentation of theoretical contributions and practical implications, the study limitations are acknowledged. Finally, a number of suggestions for future research within strategic management and construction management academic areas are highlighted.

## 9.2 Accomplishment of Research Objectives

The research was undertaken in two stages of fieldwork, quantitative and qualitative, to accomplish the research objectives. The study yielded a large amount of data which has not been available on an empirical basis regarding construction contracting firms in Ireland. Thus, the research findings provided a critical contribution to the body of knowledge in the field of strategic and construction management.

**Objective 1:** Exploring the characteristics of the strategy formulation in construction contracting firms in Ireland.

Throughout the two stages of fieldwork, it was found that the strategic planning process of Irish contractors is influenced the most by firm size. Larger firms are more likely to adopt a formalised process for initiating and reporting strategic decisions, while smaller firms mainly undertake strategic planning in an informal manner. Also, micro and small firms are less likely to have a written plan, whereas most of the medium and large firms sampled have a written strategic plan. Nevertheless, the findings have proven a modest level of knowledge and experience with strategic planning across all firm sizes.

Strategic plans in Irish firms are more likely to be relegated to oblivion since the formulation phase engage a modest number of participants, lack systematic collection and scientific analysis of data. Strategic decisions then are mainly built on intuition and experience rather than scientific grounds and objective forecasts. Therefore, participants stressed the importance of the developed framework to guide strategy formulation within their firms. The accomplishment of this objective addresses a critical gap in the body of knowledge pertaining to strategic planning characteristics in construction contracting firms in Ireland.

**Objective 2:** Determine the key components of the strategy implementation process in construction contracting firms in Ireland.

The research discovered that firm size plays a significant role in the strategy implementation process. Large and medium firms heavily rely on management systems and processes, as well as amending organisational structure to implement strategy. On the other hand, smaller firms primarily depend on communication and setting targets to transform strategic goals into action plans.

The findings revealed a surprising issue regarding the role of internal resources in the implementation process. Limited attention is devoted to the utilisation and exploitation of resources to implement strategy. The modest emphasis placed on resources contradicts with the resource intensity of the construction process, as well as skills shortage and budget constraints experienced by Irish contracting firms. Therefore, senior managers of Irish contracting firms need to rethink the importance of consolidating, integrating, and configuring possessed resources (e.g. labour, finance, and machinery) to implement strategy. In regard, the developed framework asserted the importance of different resources throughout the formulation and implementation phases of strategic management.

**Objective 3:** Ascertain the strategic type and choices of construction contracting firms in Ireland.

The prevalent environmental turbulence, along with the modest profit margin of construction projects, impose business survival as the primary aim of the vast majority of contracting firms in Ireland. Likewise, the severe cyclicity of the Irish economy and robust relationship between economic performance and supply of construction projects leaves construction firms vulnerable to financial difficulties. Therefore, an Irish contracting firm needs to own a unique competitive advantage over rivals to maintain business survival.

Along with other dimensions of strategic management, the strategic type of Irish contracting firms heavily depends on firm size. Larger firms are more likely to be ‘prospectors’ who lead

change within the industry, contrary to smaller firms that are more likely to react to market changes. The modest emphasis placed by micro and small firms on long-term planning leaves them vulnerable to liquidation as a result of any future economic recession. Given that 98 per cent of construction firms in Ireland employ less than 10 personnel (CSO, 2017), the above findings reveal that most of construction contracting firms in Ireland are at critical risk. Therefore, developing the knowledge and skills of senior managers of smaller construction firms regarding strategic management should be considered a national priority to maintain a functioning construction industry.

**Objective 4:** Investigate barriers to the strategy formulation and implementation processes in construction firms operating in the Irish turbulent industry environment.

Market uncertainty and financial difficulties remain the main barriers to strategizing in Irish contracting firms. Regular economic and industrial changes raise the complexity of long-term planning. Likewise, Irish contractors complain of the limited availability of financial liquidity. Although finance lies beyond the scope of this research, this issue is deemed important since it was continuously highlighted by fieldwork participants. Therefore, a potential exists for further research to investigate financial planning within construction firms in Ireland.

Exploring barriers to strategizing in Irish construction contracting firms provides a critical contribution to knowledge. The identification of these barriers proves the importance of strategic planning to develop congruence between scarce resources and the turbulent business environment. Likewise, it sheds light on critical issues that need to be addressed by construction companies, representative bodies, and public institutions to maintain the survival of contracting businesses.

**Objective 5:** Develop a framework for the formulation and implementation of strategic decisions in construction contracting firms operating within the turbulent Irish environment.



The analysis of both phases led to the development of a framework for adopting a dynamic capabilities lens to strategic management within construction contracting firms. The literature review and research findings ascertained that competitive advantage within construction firms stems from the exploitation, configuration, and integration of possessed resources in response to industry and economic changes. Therefore, the dynamic capabilities theory was deemed highly relevant to strategic management in construction contracting firms in Ireland.

This objective is critical to the study as it forms the cornerstone of the research project and paves a path for viewing strategy formulation and implementation in contracting firms from a dynamic capabilities' perspective. The developed framework points to the key dynamic capabilities metrics considered during strategy formulation and implementation. Nevertheless, it remains flexible enough to suit firms of different size.

The framework was validated using an online survey with senior managers of contracting firms, and responses of participants confirmed the reliability of the framework for use in practice. This framework represents a considerable contribution to knowledge within the field of strategic management in construction specifically in an Irish context, although it could potentially be replicated elsewhere.

### 9.3 Contributions of the Research

A number of notable contributions arising from the research are evident across several facets, namely: contribution to the body of knowledge, contribution to theory, and practical contribution to construction contracting firms in Ireland.

#### 9.3.1 Knowledge Contribution

This research expands the body of knowledge on strategic planning and implementation in the construction industry. It extends the knowledge of the characteristics of strategy formulation,

strategic choices, factors of the strategy implementation process, and barriers to strategizing in construction contracting firms in Ireland.

The first contribution is discovering that firm size is a critical determinant of the strategic type and strategy formulation characteristics within Irish contracting firms. The impact of size on strategy formulation is critical, given the ratio of micro and small to medium and large contractors in Ireland. The study in hand aimed to explain how firms of different size undertake strategic decisions and transform these decisions into daily activities. This relationship between firm size and strategic management is particularly significant as the majority of construction contractors are small firms (CSO, 2020). Nevertheless, they do not actively engage in the strategic planning process.

Another important contribution lies in exploring the strategic planning approach of Irish contractors. The second phase of fieldwork ascertained that a ‘planned-emergent’ approach to strategy formulation is dominant across Irish contracting firms. Although numerous firms believe that their approach to strategic planning is a ‘planned’ one, it was found that environmental uncertainty imposes the regular refinement of strategic objectives in response to market changes. Another implication of the prevalent turbulent environment is the modest emphasis placed on business growth by most of the Irish contracting firms. The majority of Irish contractors prioritise stabilisation strategy over business growth due to the numerous risks associated with the latter. Therefore, strategic planning is considered essential to contracting firms to pursue business growth and diversification of services.

The research findings revealed that the implementation of strategy heavily relies on firm size. Larger firms rely on communication systems, business processes, and organisational structure to transform strategic decisions into daily operations. On the other hand, micro and small firms rely on ad-hoc communication to convey strategic decisions to staff, as well as setting targets

to measure strategic performance. Finally, the research identified primary barriers to strategizing in Irish contracting firms.

### 9.3.2 Theoretical Contribution

Key seminal theories (e.g. Miles and Snow typology, 1978; Porter's generic strategies, 1980) were applied to derive meaningful insights from the strategy formulation process in Irish contracting firms. The theories adopted in the study examined both the process element of strategic planning (e.g. formality, participation, flow, and approach) as well as content element (e.g. corporate and business strategy). Previous studies relating to strategy in construction contracting firms in Ireland focused on the content element and response strategies to the past recession (Tansey et al. 2014; Tansey and Spillane, 2016). However, the study in hand provides considerable knowledge about the characteristics and components of strategy formulation and implementation processes in target firms, as well as their current strategic choices. Moreover, the study linked strategy formulation and implementation characteristics with the theoretical underpinnings of the dynamic capabilities theory due to the relevance of the latter to construction contracting firms.

This research contributes to theory by proving the potential application of the dynamic capabilities theory in construction firms to bridge the gap between strategy formulation and implementation. Moreover, the examination of strategy formulation and implementation through a dynamic capabilities lens facilitated the successful development and validation of a conceptual framework to act as a guide to contractors in Ireland. The study contributes to the necessary evolution of strategic management in construction firms. The framework provides a guideline to integrating strategy formulation and implementation through a dynamic capabilities viewpoint. The developed framework includes the planning characteristics, planning content, and strategy implementation factors investigated in the study, along with the key pillars of the dynamic capabilities theory.

### 9.3.2 Practical Contribution

Several noteworthy contributions to senior directors of contracting firms in Ireland have been identified emanating from the research. The study in hand aims to support strategy formulation and implementation in Irish contracting firms by identifying weaknesses and challenges to both processes. Moreover, the developed framework aims to overcome these weaknesses in pursuit of successful integrating between strategy formulation and implementation. The most notable contributions are as follows:

- Defining critical areas of strategic decision-making that warrant considerable attention from senior managers, such as broad participation, environmental analysis, and use of planning tools.
- The developed framework aims to guide firms of different size through the planning and implementation of strategy. Likewise, the augmented framework provides further details regarding every stage of strategy formulation and implementation. It aims to support strategic management in construction firms in pursuit of business survival and prosperity.
- The significant differences in strategic planning and implementation processes between small and large firms call for knowledge transfer mechanisms to support the strategic management process in smaller ones. This research sought to address this disparity in knowledge by providing empirical findings concerning both processes within firms of different size.
- Findings from this research demonstrate the modest level of knowledge among the majority of senior managers regarding strategic management. It also provides the evidence base to support training and development within the sector in order that construction contractors upskill in strategic management. Lack of strategic planning and implementation knowledge hampers the endeavours of Irish contracting firms to

engage in strategic management in pursuit of business survival and prosperity. Research participants confirmed that there is a lack of training received in this regard. Therefore, an opportunity now exists for the CIF to incorporate strategic planning and implementation in future continuing professional development (CPD) events.

#### 9.4 Limitations

The study conformed to the rigours necessary for undertaking empirical research. However, a number of possible limitations to the findings can be identified. These limitations are explored below in details.

##### **Knowledge availability**

There is a paucity of published research relating to construction contracting firms in Ireland. The primary sources of information relating to strategic management in contracting firms were sourced from the UK, US, China, and Turkey, among other countries. The study findings observed the unique nature of the Irish construction industry. Hence, one cannot assume that circumstances applicable in these countries will apply within the Irish context. However, lessons learnt from these international industries supported the exploration of strategy formulation and implementation in Irish contracting firms.

##### **Research sample**

The study sample was limited to firms registered in both representative bodies CIF and CIRI. The sample size was confined to 389 firms. However, the number of construction contracting firms in Ireland exceeds fifty thousand firms (CSO, 2020). Potential exists to expand the scope of the study to include smaller firms not registered in the representative bodies.

### **Unit of observation**

The unit of observation was limited to senior managers due to their considerable role in the strategic planning and implementation processes within construction firms. Construction practitioners on lower hierarchical levels were disregarded; however, they could possibly provide valuable information concerning the extent of their participation in the strategic planning and implementation processes, level of awareness with their firms' strategic objectives, and extent of alignment between strategic planning at a corporate level and construction planning at a project level.

### **Inferential statistical analysis**

A limitation to the generalisation of the research findings lies in limiting the scope of statistical analysis into the descriptive analysis. The decision not to include inferential statistical analysis (e.g. correlation, regression, and analysis of variance) within the quantitative stage presents an important limitation when compared with another strategy in construction mainstream studies (e.g. Oyewobi, 2014; Pamulu 2010). This exclusion is justified because of the exclusive focus on firms registered in representative bodies in Ireland (e.g. CIF). Therefore, the generalisation of findings to the overall population of contractors in Ireland was deemed unnecessary.

### **9.5 Recommendations for future research**

Several opportunities for future research have been identified throughout the research process. First, the verbal data gathered throughout both phases of fieldwork represent the beliefs, opinions, and experiences of senior directors within contracting firms. However, it is unlikely that their responses entirely reflect the reality of the characteristics of the strategy formulation and implementation processes. Therefore, multiple views from different hierarchical levels within a firm can be compared and contrasted to gain more factual data. Otherwise, a case study

strategy can be adopted to gain in-depth insights into the strategic management process within contracting firms.

Secondly, research participants confirmed that strategic management is necessary for performance enhancement and business survival. Their view is supported by the findings of numerous scholars who found a positive correlation between the engagement in strategic management and performance enhancement. However, a paucity of research sought to find a correlation between strategic management and performance improvement within an Irish industry context. Therefore, potential now exists to extend the scope to incorporate performance measures to ascertain the impact of strategic management on business performance within Irish construction contracting firms.

Thirdly, the overall number of construction contracting firms in Ireland exceeds 50,000 firms (CSO, 2020). 98 per cent of these firms employ less than 10 personnel (CSO, 2020). A potential exists to explore the strategic planning process within these micro firms. Investigating the strategy formulation processes within this large population requires a representative sample and undertaking inferential statistical analysis to generalise findings.

Finally, the study in hand solely focused on the Irish construction industry. Further studies may consider cross-border decision-making and implementation process to explore the impact of geographical contexts on strategic management in construction. An opportunity now exists to adopt similar survey tools to explore strategic management practices in different countries, either developed or developing, in pursuit of international comparison.

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## Appendices

### Appendix A: Survey Questionnaire



Strategic Management in Construction Contracting Companies in Ireland

Section 1. General Company Information

**This section contains general questions pertaining to your company and your current role within the company. Please be reminded that the answers to these questions will remain confidential. Results will be aggregated prior to publication such that no individual company will be identified.**

1. Please select the option that best describes the type of company within which you work.

☐ Building Construction

☐ Civil Engineering Construction

☐ Electrical Engineering Contractor

☐ Mechanical Engineering Contractor

☐ Specialist Sub-Contractor

☐ Other (please specify)

2. Which of the following options best describes your current position within the company?

☐ Managing Director/ Chief Executive Officer

☐ Director

☐ Associate Director

☐ Project Manager

☐ Other (please specify)

3. Please indicate the number of years your company has been in business.

☐ 0-5 years

☐ 6-10 years

☐ 11-15 years

☐ 16-20 years

☐ More than 20 years



4. Please indicate the number of people currently employed full-time in your company (including administrative staff)?

- ☐ 1-9 employees  
☐ 10-49 employees  
☐ 50-249 employees  
☐ 250 or more employees

5. Please indicate the ownership structure that best describes your company.

- ☐ Sole Proprietorship  
☐ Private Limited Liability Company  
☐ Public Limited Liability Company  
☐ Subsidiary of a Multinational Construction Group  
☐ Other (please specify)

6. Please indicate the location(s) where your company currently undertakes construction work (please select as many locations as appropriate).

- ☐ Republic of Ireland  
☐ Northern Ireland  
☐ United Kingdom  
☐ European Union  
☐ Worldwide



## Section 2. Strategic Management Practices

**This section seeks to ascertain your company's strategic objectives, approach to strategic decision-making, and changes in the strategic management practices.**

### 7. Approach to Strategy formation

Please indicate the usual approach adopted in the determination of the long-term company's objectives.

- ☐ Our company's objectives are informally determined by our senior managers based on their broad expertise.
- ☐ Our long-term objectives are set by senior managers after the business environment is analysed. Subsequently, an action plan is passed down to lower levels in the company.
- ☐ Strategy emerges over time in response to market changes.
- ☐ Our long-term objectives are driven by our company's internal resources and capabilities regardless of market changes.

8. In relation to the option selected above, please confirm if the approach to determine your company's long-term objectives has changed in the last 5 years?

- ☐ No
- ☐ Yes (If selected, please identify how the strategy has changed in addition to the primary drivers of the change)

#### 9. Corporate Strategy

Please select the strategy that best describes the overall corporate strategic objective of your company

- ☐ We seek to maintain our current market position in the face of the rapidly changing business environment.
- ☐ We are actively expanding into new sectors/markets.
- ☐ We are downsizing our current operations.
- ☐ Combination of the above (if you selected a combination, please provide further details)

10. In relation to the option selected above, please confirm if the corporate strategy of your company has changed in the last 5 years?

- ☐ No
- ☐ Yes (If selected, please identify how the strategy has changed in addition to the primary driver of the change)

#### 11. Business level strategy

In order to achieve the overall corporate strategy, which of the following best describes how your company seeks to achieve that objective (please select as many options as appropriate).

- ☐ Strive to achieve lower overall cost than rivals.
- ☐ Seek to differentiate the offered services and the construction delivery process to appeal to a broad spectrum of clients.
- ☐ Concentrate on a narrow market segment and compete with rivals on the basis of lower cost.
- ☐ Concentrate on a narrow market segment and compete on the basis of customised attributes.

Comments (if you would like to provide further details, please do in the text box)

12. In relation to the option selected above, please confirm if the business strategy of your company has changed in the last 5 years?

☐ No

☐ Yes (If selected, please identify how the strategy has changed in addition to the primary drivers of the change)



### Section 3. Strategic Planning and Decision-making Process

This section seeks to ascertain the key characteristics of strategic decision-making in your company.

13. This question seeks to determine the key elements of strategic-decision making within your company.

Please indicate to what extent of your agreement with each of the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
We use strategy tools in the strategic decision-making process in our company (e.g. Critical Success Factor, PESTEL) to identify strategic issues within our company.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our strategic decisions are documented.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have a process for identifying the strengths and weaknesses of our company.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We conduct economic analysis of the business environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We have a structured process through which strategic decisions are made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strategic decision-making in our company is driven by top management only.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
External specialists participate in the strategic decision-making process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



14. The industry environment uncertainties such as economic boom and recession may have an impact on strategic/business.

To what extent do you agree or disagree with each of the following statements regarding the impact of environmental turbulence on the strategic/business planning in your company?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Environmental turbulence has led to less structured strategic decision-making process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Systematic approach to information gathering to inform the company's decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Involvement of more employees and external specialists in strategic/business planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shorter time horizon for strategic decision-making	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you would like to make any additional comments relating to the impact of industry uncertainty on your strategic decision-making process, please do so in the text box provided.

15. Which of the following best describes your company's experience with strategic planning?

- ☐ Our company has a long history of engaging in strategic planning.
- ☐ The planning process has been formally developed in our company.
- ☐ Strategic planning is just beginning to emerge in our company.
- ☐ Our company has no experience with strategic planning, and it is not deemed necessary.

If you would like to make any additional comments, please do so in the text box provided.

16. Does your company currently have a formal (written) strategic plan?

- ☐ No  
☐ Yes

17. Please indicate the planning horizon of the strategic plan of your company (i.e. the time duration that the plan covers)

- ☐ 1 year  
☐ 2-3 years  
☐ 4-5 years  
☐ More than 5 years

18. Has your company considered shortening the planning horizon in future due to uncertainties in the business environment?

- ☐ No  
☐ Yes  
☐ I don't know

19. Please select the use(s) of your company's strategic plan (please select as many as appropriate).

- |  |   |
|--|---|
| <input type="checkbox"/> To benchmark the company's performance. | <input type="checkbox"/> To obtain funding.         |
| <input type="checkbox"/> To improve the allocation of resources. | <input type="checkbox"/> To attract major clients.  |
| <input type="checkbox"/> To guide the company's operations.      | <input type="checkbox"/> To gain ISO certification. |
| <input type="checkbox"/> Other uses (please specify)             |   |

20. The following factors can be barriers to the engagement in strategic planning. To what extent you agree or disagree that each of the following factors is a barrier to the engagement in strategic planning in your company.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Time and budget constraints.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The project-based nature of our company.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of expertise in strategic planning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resistance to change from staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resistance to change from management.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The complexity of forecasting the future demand for construction projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regular changes in the needs and expectations of clients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please identify any other barriers to engaging in strategic planning





### Strategy Implementation

The followings questions relate to the key elements of the strategy implementation process in your company, as well as the barriers to successful implementation.

21. The following key factors are considered important to successful strategy implementation.

Please determine the degree of importance of each of the following factors to the process of strategy implementation in your company.

	Not at all Important	Low Importance	Neutral	Important	Very Important
General consensus and understanding of the company's strategic objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An organisational structure that guarantees an effective coordination and control of operational tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Abundance of resources (e.g. capital, machinery, labour).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership to unite staff towards the implementation of a strategic plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Highly skilled employees.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efficient operational processes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Measurement of strategic performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please identify any other important factor in the process of strategy implementation in your company.

22. The following factors can be barriers to successful strategy implementation.

To what extent you agree or disagree that each of the following factors is a barrier to strategy implementation in your company.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Our strategic objectives were found to be unattainable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our employees lack necessary skills to implement our strategy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The strategic objectives of our company are not well understood by our staff.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The requirements of our clients has to be prioritised over achieving the strategic objectives of our company.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We cannot formalise our operational processes to deliver our strategy since every project is unique.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Top management practice limited control over the delivery of our projects since that projects are dispersed across various locations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of strategic feedback since projects delivery is evaluated from an operational perspective (e.g. time, cost, quality, client satisfaction) rather than a strategic one.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economic factors (e.g. regular changes in the demand for construction projects) affected the implementation of our strategy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please identify other factors that may act as a barrier to successful strategy implementation within your company.

23. Please feel free to identify any issues relating to the strategic management of your company which you believe is essential, yet not addressed in this questionnaire.

## Appendix B: Confidentiality Agreement with the Construction Industry Federation in Ireland (CIF)



### Construction Industry Federation CIF

#### Confidentiality Agreement

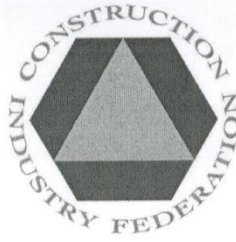
This agreement is made on the 20<sup>th</sup> of March 2018

#### Between:

1. The Construction Industry Federation (CIF), whose office is at Construction House, Canal Road, Dublin 6 - **"Disclosing Party"**; and
2. Ahmed Hossam PhD Research Student, Dublin Institute of Technology (DIT) & Dr. Róisín Murphy & Dr. Nicholas Ingle PhD Supervisors, Dublin Institute of Technology (DIT) – **"Recipients"**.

#### Background:

- A. The Disclosing Party and the Recipients intend to enter into an agreement whereby the Recipients will conduct a research study for the Disclosing Party – the **"Proposal"**.
- B. In connection with the discussions regarding the Proposal, the Disclosing Party may take available Confidential Information (as defined below) to the Recipients, which the Recipients agree to keep confidential on the terms of this agreement.



## **Terms:**

It is hereby agreed as follows:

### **1. Interpretation**

1.1 In this agreement, the following terms shall bear the following meanings:

“Confidential Information” means all information relating to the membership of the Construction Industry Federation supplied (in each case whether in writing, electronically, or orally) by or on behalf of the Disclosing Party to the Recipients in connection with the proposal.

Confidential Information shall not include:

- a) Information which was in the public domain at the time of disclosure; or
- b) Information that is lawfully acquired in good faith from a third party by the Recipients and not in breach of any confidentiality undertakings; or
- c) Information that is identified in writing at the time of delivery as non-confidential by the Disclosing Party or its advisers or is disclosed with the Disclosing Party prior written consent.

“**Person**” includes any person, firm, body corporate, governmental or regulatory department or agency;

“**Permitted Uses**” means the exchange of information between the Disclosing Party and the Recipients for the purpose of the Proposal.





## **2. Permitted Use Only**

2.1 In consideration of the Disclosing Party agreeing to make available certain Confidential Information to the Recipients, the Recipients hereby agrees to hold the Confidential Information in strict confidence and not to disclose the same to any other person. The Recipients shall only use the Confidential Information for the sole purpose of the Permitted Uses as they relate to the Proposal, and not for any other purpose whatsoever.

2.2 In consideration of any data derived via the Proposal, intellectual ownership shall be retained by the Recipients. Such data shall be used exclusively for research purposes in the execution of the Proposal and in the fulfilment of a PhD being undertaken and supervised by the Recipients.

## **3. Unauthorised Disclosure**

The Recipients shall inform the Disclosing Party immediately if it becomes aware that Confidential Information has been disclosed to an unauthorised third party and shall take all reasonable steps to assist the Disclosing Party in preventing or taking other legal action in respect of such disclosure.

## **4. Permitted Disclosure**

The provisions of the paragraphs 2 and 3 above shall not restrict the Recipients making or permitting any disclosure or announcement to the extent required by applicable law or the binding rules or regulation of any governmental or official supervisory or regulatory authority,



By

**For and on behalf of**

Construction Industry Federation (CIF)

By

**For and on behalf of**

Ahmed Hossam

By

**For and on behalf of**

Dr. Róisín Murphy

By

**For and on behalf of**

Dr. Nicholas Ingle

## Appendix C: Ranking of Construction Contracting Firms in Ireland – CIF 2016

<b>Ranking</b>	<b>Title</b>	<b>Total Revenues (€million)</b>	<b>Local Revenues (€million)</b>	<b>Foreign Revenues (€million)</b>	<b>Key Activities</b>
1	John Sisk and Son Limited	1,200	534.9	665.1	Building and Civil Engineering
2	Mercury Engineering	400	140	260	Mechanical, Electrical, Fire Protection, and IT Engineering
3	BAM Contractors	384	384	-	Building and Civil Engineering, Facilities Management, Property Development, and Rail Construction
4	Jones Engineering	360	216	144	Civil, Waste, and Energy projects
5	Dornan Engineering Limited	212.1	36.1	176	Mechanical, Electrical, and Industrial Engineering
6	John Paul Construction Limited	193.5	142.1	51.4	Civil and Industrial Engineering
7	Collen Construction Limited	191.4	190.8	0.6	Civil, Mechanical and Electrical Engineering
8	Bennett Construction Limited	155	116.25	38.75	Building, Civil, Commercial, and Industrial Engineering
9	P.J. Hegarty and Sons	152	135	17	Infrastructure, Commercial, and Industrial Engineering
10	Kirby Group Engineering	150.1	105.8	44.3	Electrical Engineering



## Appendix D: Interview Prompt Sheet

### **Question 1 (General Information)**

- Current Role
- History with the company
- Current workload undertaken in the company

### **Question 2 (Corporate & Business Strategy)**

- Overriding goal of the company
- Has it changed over the last 5 years? If “Yes”, why?
- How do you compete in the market to achieve this overriding goal?
- Has it changed over the last 5 years? If “Yes”, why?

### **Question 3 (Characteristics of Strategy Formulation)**

- Structured process to set goals/Participation/Documentation?
- Gathering internal information about resources/external information about competitors & economy?
- Use of strategic planning tools (e.g. SWOT & PESTEL)/ Reliance on external specialists.

### **Question 4 (Environmental Turbulence)**

- How would you describe the construction industry environment in Ireland? Impact of environmental turbulence on strategy or goals setting?

**Question 5 (Strategy Implementation)**

- Responsibility/Communication/Leadership
- Company structure/ Internal processes
- Resources acquisition/Resources allocation
- Monitoring strategic performance

**Question 6 (Alignment between Strategy and Individual Projects)**

- Projects planning
- Projects selection

**Question 7 (Barriers to Strategy Formulation/Implementation)**

- Barriers to goals setting.
- Barriers to strategy implementation.

**Question 8 (Strategic Planning)**

- Experience with strategic planning.
- Importance of strategic planning for company future.

End of Survey

Thanks

I would like to thank you for participating in this research study. In regard, kindly let me know if you believe there is any important issue that was not covered during this interview.

Please be reminded that all responses will be anonymised, and no personal data or company information will be identifiable during the reporting of the results of this interview. All interview data and recordings will be stored in a secured platform, according to TU Dublin research ethics guidelines.

Many thanks for your participation.

Best Regards

Mr. Ahmed Hassan (Researcher)

Dr. Róisín Murphy (Lead Supervisor)

Dr. Nicholas Ingle (Second Supervisor)

## Appendix E: Interviews Coding

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Alignment between Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	11/06/2020 15:29	AH
General Company Information		12	41 13/01/2020 10:1	AH	11/06/2020 15:18	AH
Barriers to Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Business Environment		12	91 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Strategic Planning Characteristics		12	134 07/01/2020 21:4	AH	09/03/2020 17:18	AH
Strategy Implementation Characteristics		12	61 08/01/2020 18:4	AH	09/03/2020 17:18	AH
Choice		12	33 13/01/2020 12:4	AH	09/03/2020 17:18	AH

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Name	Files	References	Created On	Created By	Modified On	Modified By
Alignment between Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	11/06/2020 15:29	AH
Resources Allocation		6	7 08/01/2020 18:5	AH	23/01/2020 15:50	AH
Active		5	6 13/01/2020 13:3	AH	05/03/2020 14:58	AH
Passive		1	1 13/01/2020 13:3	AH	20/01/2020 12:47	AH
None		0	0 13/01/2020 13:3	AH	13/01/2020 13:43	AH
Projects Design and Planning		8	8 08/01/2020 18:5	AH	23/01/2020 15:50	AH
Passive		4	4 13/01/2020 13:3	AH	05/03/2020 15:54	AH
Active		4	4 13/01/2020 13:3	AH	05/03/2020 14:57	AH
None		0	0 13/01/2020 13:3	AH	13/01/2020 13:41	AH
Projects selection		10	10 08/01/2020 18:5	AH	23/01/2020 15:50	AH
Active		7	7 13/01/2020 13:3	AH	05/03/2020 15:54	AH
Passive		3	3 13/01/2020 13:3	AH	23/01/2020 16:32	AH
None		0	0 13/01/2020 13:3	AH	13/01/2020 13:42	AH
General Company Information		12	41 13/01/2020 10:1	AH	11/06/2020 15:18	AH
Barriers to Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Business Environment		12	91 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Strategic Planning Characteristics		12	134 07/01/2020 21:4	AH	09/03/2020 17:18	AH
Strategy Implementation Characteristics		12	61 08/01/2020 18:4	AH	09/03/2020 17:18	AH
Choice		12	33 13/01/2020 12:4	AH	09/03/2020 17:18	AH

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Name	Files	References	Created On	Created By	Modified On	Modified By
Alignment between Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	11/06/2020 15:29	AH
General Company Information		12	41 13/01/2020 10:1	AH	11/06/2020 15:18	AH
Current Position		12	14 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Managing Director-Chief Executive Officer		9	9 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Project Manager-Programme Manager		3	3 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Associate Director		2	2 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Firm Size		12	12 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Micro		2	2 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Small		4	4 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Medium		2	2 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Large		4	4 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Workload		12	15 13/01/2020 10:1	AH	07/03/2020 19:36	AH
Residential		5	5 13/01/2020 10:2	AH	07/03/2020 19:36	AH
Private Non-Residential		5	5 13/01/2020 10:2	AH	07/03/2020 19:36	AH
Productive Infrastructure		0	0 13/01/2020 10:2	AH	07/03/2020 19:36	AH
Social Infrastructure		1	1 13/01/2020 10:2	AH	07/03/2020 19:36	AH
All		4	4 14/01/2020 12:2	AH	07/03/2020 19:36	AH
Barriers to Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Business Environment		12	91 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Strategic Planning Characteristics		12	134 07/01/2020 21:4	AH	09/03/2020 17:18	AH
Strategy Implementation Characteristics		12	61 08/01/2020 18:4	AH	09/03/2020 17:18	AH
Choice		12	33 13/01/2020 12:4	AH	09/03/2020 17:18	AH

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Name	Files	References	Created On	Created By	Modified On	Modified By
Alignment between Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	11/06/2020 15:29	AH
General Company Information		12	41 13/01/2020 10:1	AH	11/06/2020 15:18	AH
Barriers to Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Barriers to Strategy Formulation		11	21 08/01/2020 18:5	AH	09/03/2020 19:18	AH
Staff Shortage		7	9 20/01/2020 12:4	AH	05/03/2020 15:55	AH
Resistance to Change		2	3 08/01/2020 19:0	AH	05/03/2020 14:59	AH
Market Uncertainty		5	5 08/01/2020 18:5	AH	05/03/2020 14:58	AH
Budget Constraints		3	3 08/01/2020 19:0	AH	04/03/2020 20:30	AH
Daily Operations		1	1 08/01/2020 18:5	AH	23/01/2020 16:27	AH
Expertise		0	0 08/01/2020 19:0	AH	08/01/2020 19:00	AH
Barriers to Strategy Implementation		4	4 08/01/2020 18:5	AH	23/01/2020 15:51	AH
Budget Constraints		1	1 22/01/2020 18:2	AH	22/01/2020 18:24	AH
Daily Operations		1	1 11/01/2020 02:3	AH	22/01/2020 17:15	AH
Non-achievable Strategic Objectives		1	1 11/01/2020 02:4	AH	20/01/2020 12:52	AH
Skills Shortage		1	1 13/01/2020 12:5	AH	16/01/2020 15:37	AH
External Factors		0	0 11/01/2020 02:4	AH	11/01/2020 02:48	AH
Conflict in Priorities		0	0 11/01/2020 02:4	AH	11/01/2020 02:48	AH
Non-effective Communication		0	0 11/01/2020 02:4	AH	11/01/2020 02:46	AH
Lengthy Implementation		0	0 11/01/2020 02:4	AH	11/01/2020 02:43	AH
Business Environment		12	91 08/01/2020 18:4	AH	09/03/2020 19:18	AH
Strategic Planning Characteristics		12	134 07/01/2020 21:4	AH	09/03/2020 17:18	AH
Strategy Implementation Characteristics		12	61 08/01/2020 18:4	AH	09/03/2020 17:18	AH
Choice		12	33 13/01/2020 12:4	AH	09/03/2020 17:18	AH

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General Company Information	12	41	13/01/2020 10:1	AH	11/06/2020 15:1	AH
Barriers to Strategy Formulation and Implementation	12	25	08/01/2020 18:4	AH	09/03/2020 19:1	AH
Business Environment	12	91	08/01/2020 18:4	AH	09/03/2020 19:1	AH
Internal Business Environment	9	22	16/01/2020 12:3	AH	09/03/2020 17:5	AH
Finance	6	9	16/01/2020 12:5	AH	09/03/2020 17:5	AH
Profitability	6	10	16/01/2020 13:0	AH	09/03/2020 17:3	AH
Skills	2	3	16/01/2020 12:5	AH	09/03/2020 17:3	AH
External Environment	12	69	16/01/2020 12:2	AH	23/01/2020 15:5	AH
Technology	2	5	13/01/2020 10:0	AH	09/03/2020 17:5	AH
Highly Aware	1	2	16/01/2020 12:5	AH	21/01/2020 18:2	AH
Limited Awareness	1	2	16/01/2020 12:5	AH	16/01/2020 14:3	AH
Competition	4	4	13/01/2020 10:0	AH	09/03/2020 17:3	AH
Tense	4	4	16/01/2020 12:5	AH	05/03/2020 15:4	AH
Flexible	0	0	16/01/2020 12:5	AH	16/01/2020 13:0	AH
Industry Environment	12	60	08/01/2020 18:4	AH	23/01/2020 15:5	AH
Government Policies	6	12	16/01/2020 12:4	AH	09/03/2020 18:2	AH
Last Recession in 2007	7	14	13/01/2020 10:0	AH	09/03/2020 18:2	AH
Repeat Business	7	11	16/01/2020 14:4	AH	09/03/2020 17:3	AH
Recovery	6	10	13/01/2020 10:0	AH	05/03/2020 15:5	AH
Future Recession	6	9	19/01/2020 21:3	AH	03/03/2020 14:1	AH
Inflation	2	3	16/01/2020 12:4	AH	22/01/2020 19:3	AH
Interest Rate	1	1	16/01/2020 12:4	AH	18/01/2020 14:1	AH
Strategic Planning Characteristics	12	134	07/01/2020 21:4	AH	09/03/2020 17:1	AH

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Alignment between Strategy Formulation and Implementation	12	25	08/01/2020 18:4	AH	11/06/2020 15:2	AH
General Company Information	12	41	13/01/2020 10:1	AH	11/06/2020 15:1	AH
Barriers to Strategy Formulation and Implementation	12	25	08/01/2020 18:4	AH	09/03/2020 19:1	AH
Business Environment	12	91	08/01/2020 18:4	AH	09/03/2020 19:1	AH
Strategic Planning Characteristics	12	134	07/01/2020 21:4	AH	09/03/2020 17:1	AH
Comprehensiveness - External	12	19	07/01/2020 21:4	AH	23/01/2020 15:5	AH
Comprehensiveness - Internal	11	19	07/01/2020 21:4	AH	23/01/2020 15:5	AH
Participation	10	12	07/01/2020 21:4	AH	23/01/2020 15:5	AH
Tools and Techniques	9	15	07/01/2020 21:5	AH	23/01/2020 15:5	AH
Formality	11	12	07/01/2020 21:5	AH	23/01/2020 15:5	AH
Documentation	10	10	07/01/2020 21:4	AH	23/01/2020 15:5	AH
External Specialists	7	12	07/01/2020 21:5	AH	23/01/2020 15:5	AH
Experience with Strategic Planning	11	12	13/01/2020 10:3	AH	23/01/2020 15:5	AH
Importance of Strategic Planning	12	12	13/01/2020 10:3	AH	23/01/2020 15:5	AH
Flow	9	11	16/01/2020 12:1	AH	23/01/2020 15:5	AH
Strategy Implementation Characteristics	12	61	08/01/2020 18:4	AH	09/03/2020 17:1	AH
Choice	12	33	13/01/2020 12:4	AH	09/03/2020 17:1	AH

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ENG UK 12:17 27/07/2020

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General Company Information		12	41 13/01/2020 10:1	AH	11/06/2020 15:1	AH
Barriers to Strategy Formulation and Implementation		12	25 08/01/2020 18:4	AH	09/03/2020 19:1	AH
Business Environment		12	91 08/01/2020 18:4	AH	09/03/2020 19:1	AH
Strategic Planning Characteristics		12	134 07/01/2020 21:4	AH	09/03/2020 17:1	AH
Strategy Implementation Characteristics		12	61 08/01/2020 18:4	AH	09/03/2020 17:1	AH
Targets		10	19 13/01/2020 12:4	AH	10/03/2020 17:0	AH
Responsibility		9	10 13/01/2020 12:3	AH	10/03/2020 16:5	AH
Systems and Processes		5	6 20/01/2020 14:2	AH	10/03/2020 16:4	AH
Skills		3	3 18/01/2020 14:2	AH	10/03/2020 16:4	AH
Staff		4	5 16/01/2020 15:2	AH	10/03/2020 16:4	AH
Communication		10	13 13/01/2020 12:4	AH	10/03/2020 16:4	AH
Structure		3	4 16/01/2020 15:2	AH	10/03/2020 16:1	AH
Resources		1	1 23/01/2020 15:4	AH	23/01/2020 15:4	AH
Choice		12	33 13/01/2020 12:4	AH	09/03/2020 17:1	AH

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Name	Files	References	Created On	Created By	Modified On	Modified By
Business Environment		12	91 08/01/2020 18:4	AH	09/03/2020 19:1	AH
Strategic Planning Characteristics		12	134 07/01/2020 21:4	AH	09/03/2020 17:1	AH
Strategy Implementation Characteristics		12	61 08/01/2020 18:4	AH	09/03/2020 17:1	AH
Choice		12	33 13/01/2020 12:4	AH	09/03/2020 17:1	AH
Approach to Strategy Formation		8	9 07/01/2020 21:2	AH	23/01/2020 15:4	AH
Planned-Emergent		8	9 07/01/2020 21:3	AH	05/03/2020 14:5	AH
Resource-based		0	0 07/01/2020 21:3	AH	07/01/2020 21:3	AH
Emergent		0	0 07/01/2020 21:3	AH	07/01/2020 21:3	AH
Planned		0	0 07/01/2020 21:2	AH	07/01/2020 21:2	AH
Strategic Choice		12	24 06/01/2020 22:0	AH	06/01/2020 22:0	AH
Corporate Strategy		12	12 06/01/2020 22:0	AH	23/01/2020 15:4	AH
Combination		3	3 07/01/2020 21:1	AH	05/03/2020 15:4	AH
Growth		6	6 07/01/2020 21:1	AH	05/03/2020 14:4	AH
Stabilisation		3	3 07/01/2020 21:1	AH	03/03/2020 14:0	AH
Retrenchment		0	0 07/01/2020 21:1	AH	07/01/2020 21:1	AH
Business Strategy		12	12 06/01/2020 22:0	AH	23/01/2020 15:4	AH
Combination of Differentiation and Cost Leadership		11	11 16/01/2020 14:4	AH	05/03/2020 15:4	AH
Differentiation		1	1 07/01/2020 21:2	AH	23/01/2020 15:3	AH
Low Cost - Focus		0	0 07/01/2020 21:2	AH	16/01/2020 14:4	AH
Differentiation - Focus		0	0 07/01/2020 21:2	AH	16/01/2020 14:4	AH
Cost Leadership		0	0 07/01/2020 21:2	AH	16/01/2020 14:4	AH

## Appendix F: Ethical Approval

The image displays two screenshots of a Gmail inbox, showing an email exchange between Ahmed Hossam and Steve Meaney regarding ethical clearance.

**Top Screenshot:**

- From:** Ahmed Ahmed <d15126055@mydit.ie> to Steve, Roisin
- Date:** Mon, 24 Sep 2018, 12:39
- Subject:** Ethical Clearance - Ahmed Hossam
- Body:**

Hello Dr Meaney,

Hope my email finds you well.

I am contacting you with regard to my application for ethical clearance. I am looking forward to hearing from you regarding my application. Unfortunately, I had to delay my fieldwork since I haven't received ethical clearance yet.

Reference number: REC - 18 - 41

Best regards

Ahmed Hossam MSc BSc

CEBE PhD Scholar, Dublin Institute of Technology (DIT), Dublin, Ireland

Contact Number: +353 872152870

Email: [ahmed.ahmed@mvdit.ie](mailto:ahmed.ahmed@mvdit.ie)

**Bottom Screenshot:**

- From:** STEVE MEANEY <steve.meaney@dit.ie> to Roisin, me
- Date:** Wed, 26 Sep 2018, 09:31
- Subject:** Re: Ethical Clearance - Ahmed Hossam
- Body:**

[Tá ITBÁC ag aistriú go Gráinseach Ghormáin – DIT is on the move to Grangegorman](#)

This email originated from DIT. If you received this email in error, please delete it from your system. Please note that if you are not the named addressee, disclosing, copying, distributing or taking any action based on the contents of this email or attachments is prohibited. [www.dit.ie](http://www.dit.ie)

Is ó ITBÁC a tháinig an ríomhphost seo. Má fuair tú an ríomhphost seo trí earráid, scríos de do chóras é le do thoil. Tabhair ar aird, mura tú an seolai ainmnithe, go bhfuil dianchosc ar aon nochtadh, aon chóipeáil, aon dáileadh nó ar aon ghníomh a dhéanfar bunaithe ar an ábhar atá sa ríomhphost nó sna hiataín seo. [www.dit.ie](http://www.dit.ie)

[Tá ITBÁC ag aistriú go Gráinseach Ghormáin – DIT is on the move to Grangegorman](#)

Dear Ahmed, Roisin,

Apologies for the delay - I've switched roles in my School and my in box is a bit more chaotic than usual. I'm happy to approve the research.

Regards

/Steve



## Appendix G: Framework Validation Questionnaire

### Introduction/Consent Form

This questionnaire forms a part of an ongoing PhD research project being undertaken in Technological University Dublin (TU Dublin). It is structured in five sections as follows:

Section 1: General Company Information

Section 2: Feedback on Framework

Responses to the questionnaire will be anonymised thus no individual respondent will be identified in the analysis of the results.

Kindly consider that your participation in this research study is voluntary. Hence, you may choose not to participate or to withdraw from the questionnaire at any stage.

## Section 1. General Company Information

**This section contains general questions pertaining to your company and your current role within the company.**

1. Please indicate the number of people currently employed full-time in your company (including administrative staff)?

- ☐ 1-9 employees
- ☐ 10-49 employees
- ☐ 50-149 employees
- ☐ 150-249 employees
- ☐ 250 or more employees

## Feedback on Framework

**Please provide your opinions regarding the attached framework for strategic planning and implementation.**

2. The framework is clearly designed to be easily understood by business practitioners

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

Comments

3. The framework contains relevant components to the strategy formulation and implementation processes within our company

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

Other (please specify)

4. The framework would be of use/benefit to the strategy formulation and implementation processes within our company

- ☐ Strongly agree
- ☐ Agree
- ☐ Neither agree nor disagree
- ☐ Disagree
- ☐ Strongly disagree

Other (please specify)

5. Are there any elements in the framework that are irrelevant and need to be removed?

- ☐ No
- ☐ Yes

If "Yes", please specify below

6. Are there any elements you think they should be added to the framework?

☐ No

☐ Yes

If "Yes", please specify below

7. Would you be willing to briefly review and amended Framework based on recommended changes put forward following this validation phase?

☐ No

☐ Yes

If "Yes", please provide your email address below

**Thank you for your Participation**

**Thank you for taking the time to complete this survey, your participation is highly appreciated.**

**Should you have any queries regarding the research project, please do not hesitate to contact the researcher at (d15126055@mytudublin.ie).**

**Kind regards,**

**Mr Ahmed Hossam (PhD Scholar, TU Dublin)**

